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HEALDSBURG GENERAL PLAN

Background Report

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CITY OF HEALDSBURG

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Planning Commission

Carla Howell, Chair
Richard Iverson
Phil Rice
Frank Zak
Donald Reukema

City Staff

Mike Wilson, City Manager
Verna Cox, City Planner
Kurt Hahn, Finance Director
Richard Pusich, Public Works Director
Joe Palla, Police Chief
Ken Hanley, Fire Chief
Dayle Puckett, Parks and Recreation Director
Al Longo, Building Official

CONSULTANT TEAM

J. Laurence Mintier & Associates, Planning Consultants
Pepper Associates, Environmental and Urban Design Consultants
Joseph R. Holland, Consulting Traffic Engineer
Mitchell and Heryford, Consulting Engineers and Land Surveyors
Recht Hausrath & Associates, Urban Economists
Brown-Buntin Associates, Consultants in Acoustics
Advanced Word Processing

Cover Photo: John Youngblood

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June 1987

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INTRODUCTION

This document contains background information compiled for the City of Healdsburg General Plan. The document addresses all the significant issues addressed in the revised Plan and also serves as the "environmental setting" portion of the environmental impact report prepared on the General Plan.

The document discusses every issue required to be addressed by state general plan law as well as issues of purely local importance. The report is organized into 10 chapters covering groups of related issues. The report also includes as Appendix A an "Issues Summary" which synthesizes comments collected early in the General Plan revision process from interviews with public officials, a townhall meeting in February 1985, and responses to a widely distributed survey form. The following chart relates the issues covered in each chapter to the required elements of the General Plan.

CHAPTER

REQUIRED GENERAL PLAN ELEMENTS (Government Code Section 65302)

		LU	CI	H	CO	OS	N	S
I.	LAND USE	X						
II.	HOUSING	X		X				
III.	POPULATION	X		X				
IV.	ECONOMIC CONDITIONS AND FISCAL CONSIDERATIONS	X						
V.	TRANSPORTATION		X					
VI.	PUBLIC FACILITIES AND SERVICES	X		X	X			
VII.	RECREATION AND CULTURAL RESOURCES	X				X		
VIII.	NATURAL RESOURCES	X			X	X		
IX.	HEALTH AND SAFETY	X			X	X	X	X
X.	SCENIC RESOURCES AND URBAN DESIGN	X				X		

LU = Land Use Element
 CI = Circulation Element
 H = Housing Element
 CO = Conservation Element
 OS = Open Space Element
 N = Noise Element
 S = Safety Element

The Background Report was prepared by a multidisciplinary Consulting Team headed by J. Laurence Mintier & Associates. James Pepper, Environmental Planner and Designer, was primarily responsible for preparing Chapter VIII, Recreation and Cultural Resources, Chapter VIII, Natural Resources and Chapter X, Scenic Resources and Urban Design. Joseph Holland, Consulting Traffic Engineer, prepared those sections of Chapter V, Transportation, concerning the circulation system and parking. Mitchell and Heryford, Consulting Engineers and Land Surveyors, were responsible for the sections of Chapter VI, Public Facilities and Services, concerning water, sewage collection and treatment, drainage and the electrical system. Recht Hausrath and Associates, Urban Economists, prepared Chapter IV, Economic Conditions and Fiscal Considerations. Michael Dwyer, Engineering Geologist, prepared the section of Chapter IX, Health and Safety, concerning geologic and seismic hazards, while Brown-Buntin Associates, Consultants in Acoustics, prepared the section of this chapter concerning noise. Mintier & Associates prepared the balance of the report and was responsible for editing and compiling the Background Report.

The Consulting Team gratefully acknowledges the significant contribution of the City of Healdsburg staff in the preparing this report and reviewing earlier drafts.

CHAPTER I

LAND USE

INTRODUCTION

Land use is the principal focus of the general plan. This chapter provides a context for the General Plan by describing existing land use conditions and local, regional, state and federal plans and policies that have a bearing on Healdsburg land use. This chapter begins by describing the regional setting and Healdsburg's Planning Area and Urban Service Area. The chapter next reviews the history of planning and land use regulations in Healdsburg, describing the earlier general plans and other special planning projects undertaken by the City. This is followed by a summary of annexation history and current annexation policy, and descriptions of the current zoning structure and existing land use. This in turn is followed by a discussion of County and regional policies and developments that are significant for land use in Healdsburg.

REGIONAL SETTING

Healdsburg is located in northern Sonoma County within the nine-county San Francisco Bay Region. (See Figure I-1.) Situated 12 miles north of Santa Rosa, Healdsburg lies just beyond the limit of intense urban development that has occurred along the Highway 101 corridor in Sonoma County. The rapidly growing, but unincorporated, community of Windsor lies eight miles to the south. The small community of Geyserville lies just to the north, and Cloverdale lies further on, approximately 18 miles to the north.

Healdsburg is defined principally by Highway 101, the Russian River, agricultural lands and mountains to the east and west. Highway 101 is the principal coastal route between San Francisco and the Oregon border. The Russian River rising in Mendocino County flows through Healdsburg on its way to the Pacific Ocean. The city lies at the intersection of three rich agricultural valleys: Sonoma Valley, Dry Creek Valley and Alexander Valley. East and west beyond the agricultural lands rise subsystems of the Coastal Mountain Range.

PLANNING AREA

For the purposes of the General Plan, the City of Healdsburg has defined its Planning Area as the incorporated and unincorporated area shown in Figure I-2. The City's designated Urban Service Area is coterminous with the Healdsburg Sphere of Influence adopted by the Sonoma County Local Agency Formation Commission in 1983. (See Figure I-2.)

The City's Urban Service Area contains a total of 3,502 acres. Of this total 2,076 acres lie within the incorporated City and 1,426 acres are unincorporated. The Urban Service Area excludes two incorporated areas totaling 18.7 acres: 2.9 lie in the Russian River channel near South Fitch Mountain Road and 15.8 acres lie in the Peninsula Area. The Urban Service Area does not include discontinuous City territory such as the Municipal Airport and the City's sewage treatment facilities.

TABLE I-1

AREA WITHIN THE URBAN SERVICE AREA AND CITY LIMITS

Total Area within Urban Service Area	3,502 acres
Area within City Limits ¹	2,076 acres
Unincorporated Area within Urban Service Area	1,426 acres
Area within City Limits but Outside Urban Service Area	18.7 acres

¹ Does not include noncontiguous city territory (e.g., Municipal Airport)

Source: Consultant Team Estimate, September 1986

HISTORY OF LAND USE PLANNING IN HEALDSBURG

Introduction

For most of its existence Healdsburg has served as a service center for its agricultural hinterlands. It remains to this day a small town with a strong rural character. Planning and land use regulations over the years have aimed at preserving this small-town, rural atmosphere, while at the same time attempting to adapt the town to new social and economic realities in the San Francisco Bay Region.

Early Developments

Healdsburg established its first planning commission in 1945 and adopted its first zoning ordinance and subdivision regulations in 1953.

1963 General Plan

Ten years later, in 1963, the City adopted its first general plan. The plan was prepared by Livingston and Blayney, City and Regional Planners of San Francisco, with the assistance of a 64-member citizens advisory committee.

The plan covered a 39 square mile planning area and attempted to look 25 to 30 years into the future. At the time, Healdsburg had an incorporated population of 4,950, with an additional 2,900 persons living in the unincorporated area. The plan projected that by 1985 the Healdsburg Planning Area would have a population of 16,000, with approximately 12,000 living within the urban incorporated area.

The plan included the following major policies:

- Retaining high quality land in agricultural production wherever possible;
- Eliminating the mixture of residences and industry between the freeway and the railroad;



HEALDSBURG CALIFORNIA

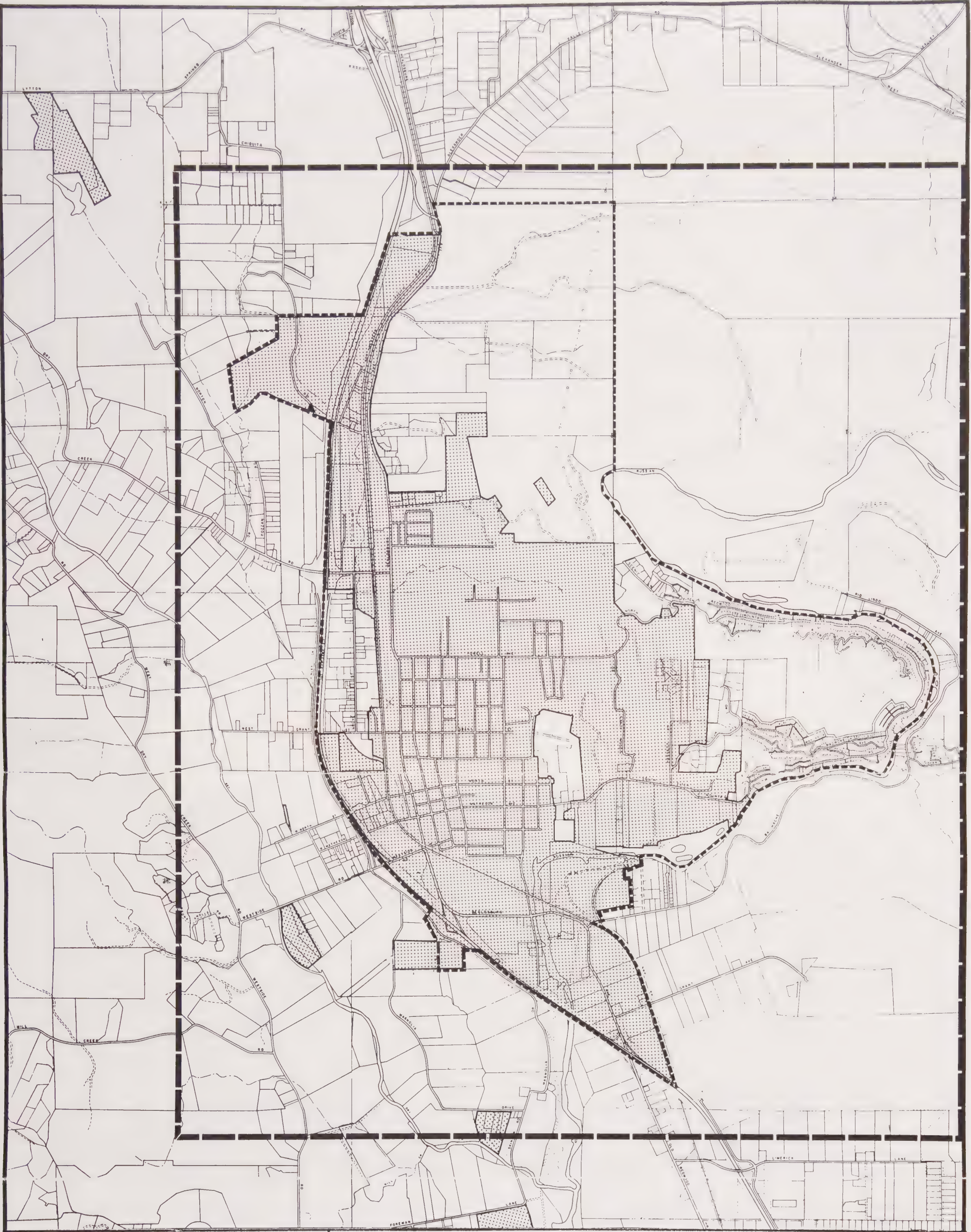
GENERAL PLAN

SMITH HARRISON & ASSOCIATES



Figure I-1. REGIONAL SETTING

Source: Consultant Team, 1985



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

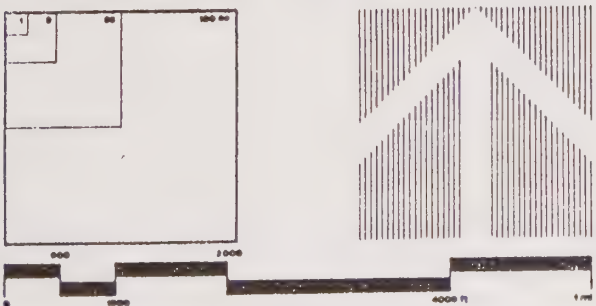





Figure I-2. HEALDSBURG & ENVIRONS

-  City of Healdsburg
-  Urban Service Area
-  Planning Area

Source: Consultant Team, 1986

- Maintaining downtown Healdsburg as the dominant commercial center of northern Sonoma County;
- Preserving the character of Fitch Mountain and the rustic, rural character of its summer home and resort area;
- Acquiring a regional park on the Russian River adjoining Healdsburg.

The plan designated residential land to accommodate a total population of about 15,000. The central core of Healdsburg was designated for the highest density, seven units per acre and contemplated a mixture of apartments and single-family homes. Medium density residential development at four units to the acre was shown surrounding the core on the east and north roughly out to the present city limits. Medium density was also indicated for a large area to the north on the east side of Healdsburg Avenue opposite the Boise Cascade Lumber Company. The western face of Fitch Mountain, the hill areas to the northwest and the Grove Street area were designated for low density development in the range of 0.5 to 1.5 units per acre. The existing pattern of summer homes on both sides of the Russian River and around Fitch Mountain was reaffirmed.

Professional offices and apartments were prescribed for both sides of Healdsburg Avenue between Grant Street and Dry Creek Road.

The downtown retail business area was expanded north and east to include the north frontage of Piper Street and the east frontage of East Street. In addition to the existing visitor serving uses at the main Highway 101-Healdsburg Avenue exit, thoroughfare commercial was shown at the southern Healdsburg Avenue exit and at the Dry Creek Road interchange. Commercial service was proposed for both sides of Healdsburg Avenue north from the intersection with Dry Creek Road and for existing areas along Healdsburg Avenue north and south of commercial core area.

In addition to the existing 263 acres in industrial use, the Plan proposed an additional 406 acres for industrial use. Most of the southwest fringe of town--along the railroad tracks and between the tracks and Highway 101--and a large area on westside at Dry Creek were designated for "non-smoke producing" industry. All the land between Highway 101 and the railroad tracks north of Dry Creek Road was designated for "smoke-producing" industry.

The major park proposal in the 1963 plan called for creating a 585 acre regional park and golf course on the Russian River opposite Digger Bend in conjunction with damming the Russian River to create a 120 acre lake.

Several major street and road improvements were proposed including the following:

- Extending Dry Creek Road east to Fitch Mountain;
- Extending University Street north to connect the existing developed area to the proposed residential area north of town and eventually to Alexander Valley Road;
- Connecting Westside Road to Mason Street.

1971 General Plan

In 1970 and 1971, Healdsburg once again retained Livingston and Blayney to assist them in updating the 1963 General Plan.

The 1971 plan increased the area designated for residential development by 555 acres over the 1,666 acres shown in the 1963 plan. The new plan was designed to accommodate 22,000 persons. This expansion in residential capacity was the result of a number of important changes:

- Increasing the amount of land designated for high density residential development from 114 acres to 139 acres by changing industrial designations to high density residential on the south side of Mason between Fitch and University Streets and in the area east and south of the Sunsweet plant in the Magnolia Drive Addition.
- Increasing the amount of land designated for medium density residential development from 589 acres to 1,149 acres by changing the agricultural designation on 536 acres in the Peninsula Area south of Westside Road between Dry Creek, the Russian River, and Highway 101, to medium density residential.
- The amount of land designated for low density residential development actually dropped by 30 acres to 933 acres because of designation changes in the River's Bend area commercial and industrial areas.

The new plan designated 33 acres for professional offices and apartments. Although ten new acres were added to this category, 25 acres formally designated for professional offices and apartments was changed to thoroughfare commercial and commercial service categories.

While there was no change in the lands designated for retail business, the amount of land designated for thoroughfare commercial increased from 17 acres to 60 acres. This substantial increase was the result of designation changes:

- Increasing commercial designations at the Dry Creek Road/Highway 101 interchange, including land to the west of Highway 101;
- Converting land on the east side of Healdsburg Avenue south of Dry Creek Road from professional office and apartments to commercial;
- Converting land in the Ward Street area from industrial to commercial;
- Increasing the amount of land designated commercial at the South Healdsburg Avenue-Highway 101 interchange.

The amount of land designated commercial service also increased, from 65 to 96 acres. These changes occurred several places along Healdsburg Avenue and in the Peninsula Area.

Industrially designated land decreased from 669 to 592 acres. A new industrial area was added, however, east of the railroad tracks in the Grove Street area.

The revised plan showed a number of changes in the earlier circulation plan:

- A new frontage road was shown east of Highway 101 between Mill Street and West Grant to provide freeway access to the West North Street addition without requiring traffic to use Healdsburg Avenue;
- A number of major circulation improvements were shown in the Peninsula Area to serve the 536 acres of planned residential in the area.

1971 Housing Element

Under a new state mandate, Healdsburg, again with the assistance of Livingston and Blayney, produced a separate housing element in 1971. The housing element focused principally on the issues of low- and moderate-income housing, housing for the elderly, housing rehabilitation and possible measures and programs to meet needs in these areas.

1973 General Plan Elements: Conservation and Open Space, Seismic Safety and Safety, Noise, Scenic Highway and Recreation

Again in response to new state mandates and again assisted by Livingston and Blayney, Healdsburg prepared the six new required elements and an optional recreation element. The policies and recommendations of these new elements were primarily programmatic and did not substantially alter the policies and recommendations of the 1971 General Plan.

1978 General Plan

In 1978, the City of Healdsburg adopted a revised general plan that included all state mandated elements. John Roberto and Associates acted as consultants to the City for the update.

The 1978 plan perpetuated most of the land use recommendations in the 1973 General Plan. A major difference was the treatment of the Peninsula Area southwest of the city across Highway 101. While the 1973 plan proposed residential use for the area, the 1978 plan designated virtually all this area for agriculture, perpetuating the existing use.

In addition to this recommendation, the Plan's land use element included the following policies of particular note:

- Policy D-1 Future growth in Healdsburg shall be limited by an urban expansion line and the holding capacity of the planning area, rather than the availability of unimproved land in the planning area and the capacity of public facilities and services.
- Policy D-2 A twenty-year urban expansion line shall be designated on the General Plan Land Use Map. This means that annexation shall not occur outside that area until the year stipulated on the urban expansion line.

- Policy D-3 It is the policy of the City to direct urban expansion to the north.
- Policy D-4 Annexation to the south will be limited to that area across the Russian River shown as industrial and commercial on the general plan map.
- Policy D-5 Annexation of the Fitch Mountain resort home area shall not be undertaken until adequate public improvements have been made by the residents of the area.
- Policy D-6 Those undeveloped areas on the Peninsula south of Highway 101 between the Russian River and Dry Creek which are presently in the City should be deannexed.
- Policy D-7 Annexation of the Chiquita area located west of Highway 101 should be phased over the 20 year planning period in order to direct urban expansion to the north and to reduce development pressure on nearby agricultural land.

The Circulation Element of the plan recommended a number of key street improvements including:

- Policy E-1 A north-south arterial roadway should be constructed and located adjacent to Highway 101. The new roadway should parallel the freeway from Mill Street to Dry Creek Road.
- Policy E-2 Extend March Avenue east to Fitch Mountain Road.
- Policy E-3 University Avenue should be widened, and extended north as development occurs, thereby providing another major north-south arterial.
- Policy E-4 Chiquita Road should be extended southeast around the hills and connecting with the future extension of University Avenue.

The Conservation and Open Space Element reiterated many of the proposals in the 1963 and 1973 plans. Key policies included:

- Policy A-1.1 The top of Fitch Mountain and adjacent slopes should be preserved in their natural state.
- Policy A-1.2 The ridgelines of the hills which form the northeastern boundary of the city shall not be developed.
- Policy B-1 The City will not annex or extend urban services to areas with prime agricultural soils.
- Policy D-1 Areas of high, diverse wildlife habitat shall be preserved through a reduction in intensity and density of allowable development, by minimizing grading and replanting and encouraging cluster development.

- Policy D-2 Along aquatic and riparian habitats the city should require an adequate water course setback applicable to roads, septic tanks and structures. Uses incompatible with the wildlife habitats shall be prohibited.
- Policy F-5 Design improvements such as landscaping, painting and obsolete sign removal should be undertaken at the major intersection providing access to the city from Highway 101.

The Environmental Safety Element contained many recommendations for further study and very general development guidelines. Among the most substantive policies were the following:

- Policy A-10 The City shall establish risk zones (low), (moderate) and (high) using the criteria and standards presented in the Initial Study and shall delineate the boundaries of the zones on a Risk Map of the planning area.
- Policy B-2 All proposed developments shall be reviewed against the Slope Stability Map, copies of which are on file at the City Hall. Soils and geologic reports shall be responsive to the information indicated on these maps.
- Policy B-4 Low density zoning and/or the concept of clustering may be utilized in high and moderate risk areas.
- Policy E-1 A structural inventory of critical, involuntary and high occupancy structures in high and moderate risk areas should be taken.
- Policy E-2 Priorities for inventory, evaluation and abatement of structural hazards should be established.
- Policy F-1 The structural integrity of all existing critical facilities in the city should be reviewed and those critical facilities which are found unable to meet Goal F, to withstand the "maximum probable" earthquake and remain in service...should be strengthened or redesignated as critical facilities.
- Policy I-1 Changes in topography and the placement of structures in the planning area's drainage basins should be designated so as not to increase the potential of flooding in other areas of the city.
- Policy I-2 Vegetation removal, soil compaction, and the creation of impervious surfaces should be minimized throughout the planning area.

The substantive policies of the Noise Element were limited to two:

- Policy A-1 The City should enact zoning, building and subdivision ordinances which employ effective techniques of noise control.

Policy A-5 Until the City formally adopts noise standards for the community, the EPA noise level standards by land use as listed in the Noise section of the Initial Study should be used.

The Scenic Highway Element also had two policies of note:

Policy A-1 That Healdsburg Avenue, Westside Road, Dry Creek Road, Fitch Mountain Road and U.S. Highway 101 be declared scenic highways and that they represent a visual value in the planning areas, and should be enhanced and preserved as a visual link to open spaces and the community's historical urban features.

Policy A-2 That Westside Road, Dry Creek Road and Fitch Mountain Road remain two lane roads in keeping with the scale of the planning area.

The policies of the Parks and Recreation Element were very broad, with the most specific policy recognizing the need for a cultural performing arts facility (Policy B-4). The plan's land use diagram did, however, recommend a number of specific park sites, including the area directly across the Russian River from Memorial Beach, the City's old corporation yard (the General Plan was amended in 1984 to change this designation in part of this area to residential use), and an area roughly in the center of the proposed residential area north of the existing city.

The 1978 Housing Element encouraged development of low- and moderate-income housing in the city's medium and high density residential areas by allowing densities at the high end of the density range when low- and moderate-income housing was included (Policy B-1.1). The housing element went on to establish residential densities as follows:

Very Low	-	0-1 dwelling unit/acre (du/acre)
Low	-	1.1-4 dwelling units/acre
Medium	-	4.1-8 dwelling units/acre
High	-	8.1-16 dwelling units/acre

Although the 1978 General Plan did not project population based on its land use designations, it cited Sonoma County and California Department of Finance projections showing Healdsburg with a population of 11,000 in 1990 and 14,500 in the year 2000. At the time the 1978 General Plan was adopted, the City had a population of approximately 6,500.

Two major problems have become evident since the 1978 General Plan was adopted. First, the policy language of the Plan was general and the Plan contained little direction for implementation. Second, the land use diagram was drawn very broadly, leaving too much latitude for interpretation. The precise boundaries of the various land use categories shown on the land use diagram have been a constant source of confusion and controversy.

Redevelopment Project (1981)

Under California Community Redevelopment Law, the City of Healdsburg created a redevelopment agency and established a redevelopment project area known as the Sotoyme Project Area in 1981. The adopted project area includes roughly 60 percent of the incorporated city, including Healdsburg Municipal Airport.

The Redevelopment Plan, prepared for the City by City Bond and Mortgage Corporation and Piedmont Associates, describes the overall objectives of the plan and the conditions that prompted its adoption as follows:

The Healdsburg Redevelopment Agency proposes to use the process of Community Development to eliminate and reduce many aspects of visual, economic, physical and social blight presently existing within the City of Healdsburg and more specifically within the boundaries set forth within the Sotoyome Project Area, as set forth in this Community Development Plan. This action is necessary because within the Project Area there presently exists an undesirable mixture of residential, commercial, and industrial uses.

In some parts of the Area physical decline in the integrity of building improvements is apparent and in some areas there exist advanced stages of physical deterioration. In other parts of the Area, an inadequate circulation system thwarts the development of much of the Project Area, causing inefficient land use patterns and overly expensive development costs.

The Project Area is represented by fragmented parcelization and multiple ownership to the point that land assemblage for proper economic utilization of the area has been hampered. The lack of early comprehensive planning has led to a condition where the proper utilization of land has been unrealized. This misuse of land when considered in light of fragmented ownership of parcels and the adverse effect the mixture of residential, commercial and industrial uses have in the area taken as a whole, constitute a physical, social and economic blighting influence on the Project Area.

A further negative influence within much of the Project Area is the lack of basic or adequately sized sanitary and storm sewer collection systems and electrical and water distribution systems. Further, streets in some cases are too narrow to handle the traffic volume needed for workable circulation or may lack the necessary inter-connections to provide for adequate circulation.

The adopted objectives of the Redevelopment Plan are very broad, reflecting the very broad powers of the agency under California law:

1. To encourage the enhancement of the residential neighborhoods in the City, especially in terms of basic livability for the residents of the Project Area.

2. To achieve a balance between residential and commercial and industrial development within the community that will create a sound economic base for the community, both in terms of jobs for the residents, and to make it possible that the local government have a revenue basis capable of sustaining those levels of public service the residents of the community desire and need.
3. To maximize opportunities wherever possible for the retention of existing property interests, for local investors as well as for the continuation, revitalization and expansion of existing commercial enterprises within the area.
4. To upgrade and improve the Downtown so that it will serve as the social and commercial center of the community.
5. To preserve and enhance the historic environment of Healdsburg.
6. To encourage housing improvement and rehabilitation throughout the Project Area.
7. To accomplish these goals with a minimum displacement of any residential homeowner.

To accomplish these objectives, the Plan outlines a list of techniques that the Redevelopment Agency would employ:

1. Installation, construction, or reconstruction of streets, utilities, landscaping, and other on-site and off-site improvements.
2. Encouragement of development of land by private enterprise for use in accordance with this plan.
3. Providing for open space and recreational land use.
4. Rehabilitation and rejuvenation of existing structures.
5. Limited acquisition of real property.
6. Relocation assistance to displaced residential and non-residential occupants.
7. Demolition or removal of buildings and improvements.
8. Disposition of property for uses in accordance with this plan.
9. Provision of tax-exempt financing to those projects in conformance to the Community Development Plan as well as all appropriate City Codes and Plans.

10. Utilization of other tax-exempt financing available to the Agency, the City, the Industrial Development Authority, including but not limited to that authorized by the California Industrial Financing Act, the Marks Historical Rehabilitation Act, Parking or Assessment District Statutes and the Rehabilitation Construction Loan Act.
11. The utilization of the Healdsburg Public Improvement Corporation for lease contract financing of public improvements.
12. The possible creation of an SBA 503 Development Corporation to be utilized in conjunction with private or public financing or grants from the State or Federal governments to facilitate various developments.

The Redevelopment Plan includes a land use map showing permitted land uses in four categories (residential, commercial, industrial, and mixed) and major circulation routes, as shown in Figure I-3. The distribution of land uses shown on the map is based on and consistent with the 1978 General Plan, although the list of allowable land uses within each category is very broad. The Redevelopment Plan also provides that the "maximum permitted dwelling unit density shall be 45 units per acre of site area, except that housing designed specifically for the elderly and physically handicapped may be developed at greater densities." This density limit is more than twice the limit established by the 1978 General Plan and zoning ordinance, even when a project qualifies for a density bonus.

1981 Housing Element

Responding to new state housing element requirements, the City adopted a revised housing element in 1981. The Housing Element was prepared by a team of consultants that were Sheila Brutoco and Associates, Jennifer Pardell, and Sigrid Swedenborg.

The 1981 Housing Element did not significantly change the housing goals in the 1978 housing element. Rather, it supplemented them with a more detailed implementation strategy. Since adopting the element, the City has aggressively pursued a number of the housing programs recommended in 1981, including the development of a 40-unit senior housing project (Fitch Mountain Terrace). The 1981 Housing Element also included density bonus policies and standards providing for a 25 percent increase in density over what the land use element allowed if at least 25 percent of the units in the project were affordable to low- and moderate-income families.

1982 Open Space Committee Report

In 1981, the Healdsburg City Council created and appointed an open space committee to inventory the area's open space resources and recommend policies for open space protection. The committee completed and submitted a voluminous report to the City Council in August 1982. The report contained recommendations on a broad range of open space issues: geological hazards; fire hazards; hydrology; parks and recreation; historic resources; trees; hillside development; scenic corridors; rare and endangered plants and animals; riparian habitat; and agriculture. The report also included a

proposal for a comprehensive open space ordinance. While the City Council did not take action on the document as a whole, a number of recommendations, such as the adoption of a historic zoning district, have been implemented.

1982 R/UDAT Report

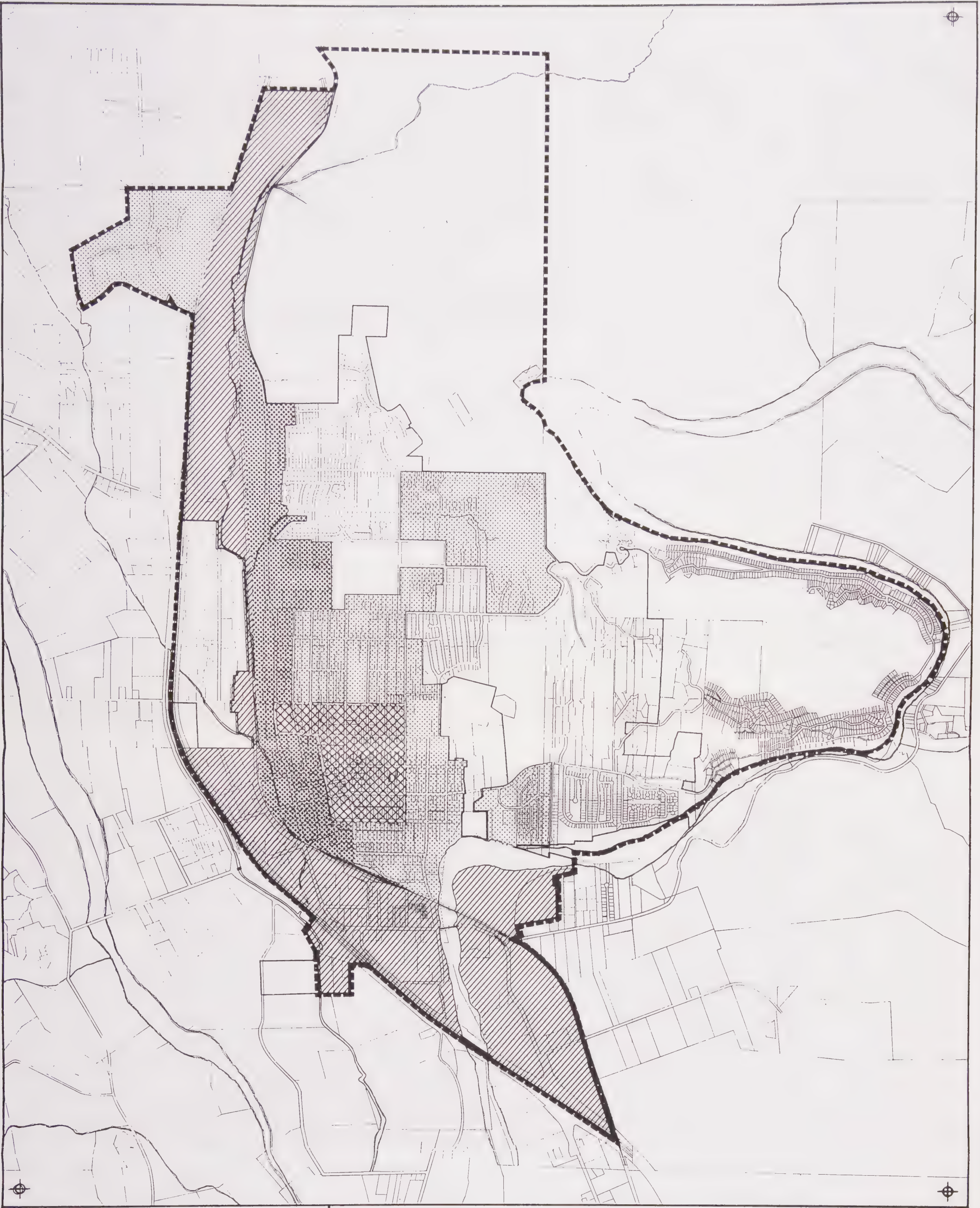
In 1982 the City was fortunate to receive planning assistance from the AIA sponsored Regional/Urban Design Assistance Team (R/UDAT). Under the program, a multidisciplinary team of seven planners, architects and other specialists from all over the U.S. conducted a brief, but intensive study of Healdsburg, which included a visit by the entire team in October 1982. Following their research and visit, the team members published their findings and recommendations in a report entitled Healdsburg R/UDAT.

Concerning Healdsburg's economy, their chief recommendation was that the City should focus its efforts on capturing a larger share of wine related tourism. Specific proposals expanded on this recommendation:

- Healdsburg should promote a two day (minimum) loop tour of both Valley's wineries through the San Francisco Tourist Office and the County Wine Grower's Association. This would make the town the logical location for an overnight stay, and create the hotel market as a spinoff of commercial retail sales. The tour would feature the scenic roads of the region and bypass the major interstate roads which offer little of commercial value to the community.
- We recommend the City encourage commercial development in and near the Plaza to respond to this tourist market. The City and local merchants should develop a common theme here and orient the area toward the wine country tourist. The area should emphasize retail firms, accommodations, and restaurants, rather than local professional or convenience stores. Development of the westside of the Plaza should occur only if it enhances the ability of the entire area near the Plaza to serve this market. The City should give preference to a first-class hotel/restaurant complex on the westside. Finally, the City should alter the character of Healdsburg Avenue between Mill and Piper Streets to ensure that it serves as a corridor leading people into the Plaza.

While promoting Healdsburg as a destination point for wine-related tourism, the Team recommended special consideration be given to accommodating highway oriented tourism.

- For other tourists, the City's commercial development must have an entirely different flavor, and a separate location. Highway-oriented travelers, especially those headed to and from Lake Sonoma, increasingly will demand highway-oriented goods and services at the Dry Creek Road interchange with U.S. 101. This is the main entry point to Lake Sonoma from the south. The City should thus respond accordingly.



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

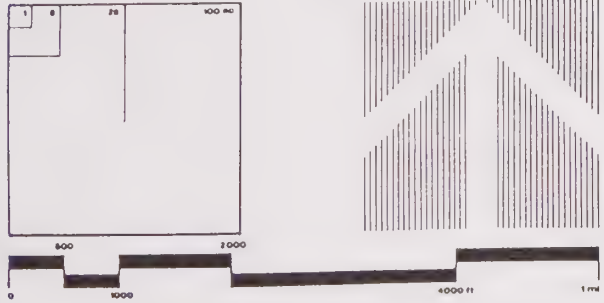




Figure I-3 REDEVELOPMENT PROJECT LAND USE PLAN

-  Residential
-  Commercial
-  Industrial
-  Mixed
-  Project Area Boundary

Source: Sotoyome Community Development Plan, City of Healdsburg, 1981

- The City should encourage commercial development east of U.S. 101 that includes motel(s), gasoline stations, automotive/marine services, boat storage, fast-food restaurants, and the like. In essence, the City should encourage a commercial node on the east side of the interchange to serve and capitalize on the anticipated growth of traffic headed toward Lake Sonoma.

The report also stressed the need to link the Plaza to the shopping centers north on Center Street and to the Vineyard Plaza shopping center "from a land use standpoint, a pedestrian standpoint, a circulation standpoint and from a design standpoint."

The report recommended that Healdsburg Avenue be rerouted west from Piper Street to Mill Street and that the existing stretch of Healdsburg Avenue between these two cross streets be renamed Vine Street.

One other major recommendation was the establishment of a Hispanic community center, "El Centro Cultural de la Plaza," in downtown just west off the Plaza on North Street. Aimed at better integrating Hispanic and non-Hispanic groups in the community, the community center would include meeting rooms, facilities for banquets and receptions, and temporary dormitory facilities.

1984 Moratorium and 1987 General Plan Revision

Prompted by growth pressures and the City's concerns that the 1978 General Plan and the City's zoning were not providing clear and consistent direction for managing growth, the Healdsburg City Council, on August 24, 1984, adopted interim growth measures pending the preparation and adoption of a revised General Plan. In August 1985, the City Council extended the moratorium for another ten months to June 30, 1986. The interim measures restricted general plan amendments, rezonings, other than in-fill annexations, and limited new development within four study zones. The four study zones included:

Study Zone A - All land zoned CS, CL and CD north of Powell Avenue.

Study Zone B - All currently unincorporated land within the City's sphere of influence between the Northwestern Pacific Railroad tracks and the freeway bounded by the current city limits.

Study Zone C - All land in the CS zone on the northside of Healdsburg Avenue.

Study Zone D - All land east of the Russian River in the current city limits ("Old Redwood Highway Area").

In December 1984, the City retained a team of planning consultants under the direction of J. Laurence Mintier & Associates of Sacramento to undertake a complete revision of the City's General Plan. The revised Plan was adopted in 1987.

ANNEXATION HISTORY AND POLICY

Since its incorporation in 1867, the City of Healdsburg through annexation has grown in area to three and a quarter square miles. Figure I-4 depicts this annexation growth and Table I-2 lists all annexations since the City's founding. During the 1950s, the City added 479.14 acres by annexation; during the 1960s, 303.27 acres; during the 1970s, 629.04 acres; and since 1980 only 73.46 acres. These annexations include both contiguous and non-contiguous land such as the Municipal Airport.

Annexations of land to cities are regulated by the Cortese/Knox Local Government Reorganization Act (Government Code Sections 56000 et seq.). Generally, any land that is contiguous to a city may be annexed to the city if the annexation does not result in an island of unincorporated land completely surrounded by the city or in narrow strips of unincorporated land.

Proponents of an annexation must secure the approval of the affected city and the Local Agency Formation Commission (discussed later in this Chapter). In inhabited territory--territory with at least 12 voters--a petition signed by 25 percent of the qualified electors in the area is filed with the city council which then calls a public hearing. A special election must then be held and the annexation must be approved by a majority of those voting. Proposals for annexing uninhabited territory--territory with fewer than 12 voters--may be initiated by either the city or the landowners. No election is held and, if approved by the Local Agency Formation Commission, the annexation occurs automatically, unless there is a protest by 50 percent or more of the owners of land and improvements in the area.

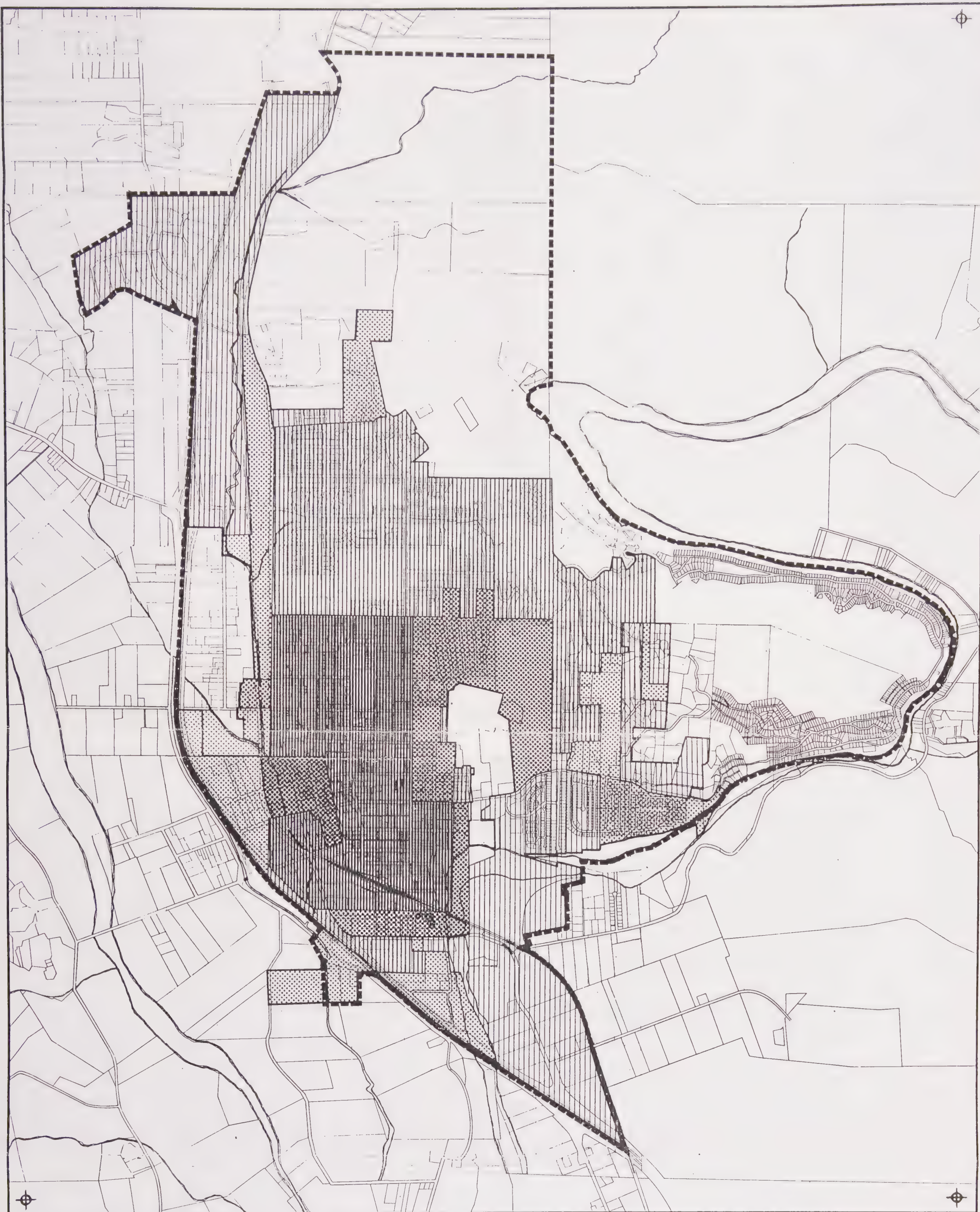
In 1981, the Healdsburg City Council adopted a set of annexation policies shown on page 19.

ZONING

Under state law, cities and counties have broad latitude in establishing zoning standards and procedures. Outside of a general requirement for open space zoning and several special requirements governing residential zoning, state law establishes only in broad terms the scope of zoning regulation and sets minimum standards for its adoption and administration. However, one key requirement is that zoning be consistent with the general plan.

The City's zoning ordinance, originally adopted in 1953, has been amended many times over the years. Major amendments to the zoning ordinance were enacted following a study by John Roberto Associates prepared during the same period the 1978 General Plan was being developed.

Because the zoning ordinance evolved piecemeal over the years and has never been comprehensively reviewed and revised, the ordinance text presently contains archaic language, erroneous references, inconsistencies and inadequate development standards. The following sections summarize the structure of the zoning ordinance.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

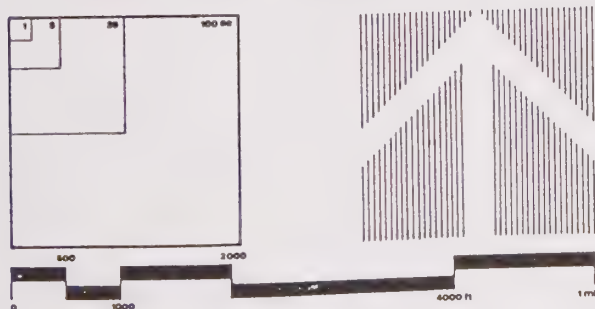


Figure I-4 ANNEXATION CHRONOLOGY

- Original Town Site 1857
- 1857-1900
- 1900-1950
- 1950-1960
- 1960-1970
- 1970-1980
- 1980-1986

Source: City of Healdsburg, September 1986

TABLE I-2

ANNEXATION CHRONOLOGY

1. Healdsburg as Recorded 3/5/1857	15. Matheson St. 1/15/51, Ord. 326 3.55 ac.	27. Lutheran Church Addition 1/6/58, Ord. 395 2.19 ac.	39. Carraro Annexation 9/7/65, Ord. 475 29.0 ac.	51. Chiquita Rd. Addition 6/5/76, Ord. 627 106.11 ac.
2. Knaak's Addition 11/27/1865	16. North Fitch Mtn. 2/4/52, Ord. 333 99.0 ac.	28. Highway #2 8/17/59, Ord. 408 11.94 ac.	40. Healdsburg Ave. Annex 8/15/66, Ord. 487 31.0 ac.	52. Hassett Lane Addition 10/2/76, Res. 109-78 35.41 ac.
3. City of Healdsburg as Incorporated 2/20/1867	17. Flosi Addition 2/18/52, Ord. 334 1.16 ac.	29. Gauntlett Terrace #2 9/18/59, Ord. 409 12.50 ac.	41. Norton Addition 12/5/66, Ord. 493 9.60 ac.	53. Solar Terrace #4 11/20/78, Res. 134-78 8.88 ac.
4. Haydon's Extension 5/1/1867	18. Healdsburg High School Addition 2/2/53, Res. 9-53 31.56 ac.	30. Ross Addition 10/31/60, Ord. 423 7.56 ac.	42. Magnolia Dr. Addition 5/19/69, Ord. 518 26.2 ac.	54. Grove St. Addition 1/8/79, Res. 1-79 10.50 ac.
5. Hudson's Addition 7/20/1874	19. Powell Ave. #1 7/20/53, Ord. 355 7.81 ac.	31. Salotti Addition 12/18/61, Ord. 431 1.26 ac.	43. West North Street 11/17/69, Res. 74-69 42.7 ac.	55. Rice Reorganization 8/6/79, Res. 126-79 7.7 ac.
6. Court Order establishing City Limits (Ward's, Luce's Additions 4/17/16)	20. Penry Addition 3/5/54, Ord. 358 0.43 ac.	32. Kennedy Annexation 2/19/62, Ord. 434 3.30 ac.	44. Urquhar Annexation 12/1/69, Res. 1-70 6.5 ac.	56. Old Redwood Highway Addition 11/19/79, Res. 168-79 203.4 ac.
7. Miller's Addition 7/8/29, Ord. 213 10.0 ac.	21. Sands Tract #4 5/16/55, Ord. 366 13.53 ac.	33. Sunsweet #1 7/2/62, Ord. 440 1.24 ac.	45. Healdsburg Ave. #2 12/27/72, Ord. 561 170.29 ac.	57. Healdsburg Municipal Airport Annexation 9/22/80, Res. 120-80 45.12 ac.
8. Prodon Addition 5/16/49, Ord. 315 30.93 ac.	22. Powell Ave. #2 6/7/55, Ord. 367 11.36 ac.	34. Sunsweet #2 7/2/62, Ord. 441 2.91 ac.	46. South Fitch Mtn. #2 4/7/75, Ord. 596 18.0 ac.	58. Lynch-Butler Annexation 1/19/81, Res. 6-81 5.32 ac.
9. Reed Court Addition 5/16/1949, Ord. 316 2.28 ac.	23. Solar Terrace 10/17/55, Ord. 370 225.74 ac.	35. Salotti #2 6/1/64, Res. 46-64 4.0 ac.	47. Barsotti Addition 8/15/75, Res. 65-75 21.4 ac.	59. Dordahl Annexation 3/2/81, Res. 29-81 6.0 ac.
10. Royal Garden Tract 8/15/49, Ord. 316 3.79 ac.	24. Hidden Acres 8/20/56, Ord. 383 25.37 ac.	36. South Fitch Mtn. #1 12/19/64, Ord. 463 99.0 ac.	48. South Fitch Mtn. #3 3/15/76, Ord. 604 12.82 ac.	60. Grove Street Addition No. 2 11/16/81, Res. 136-81 3.98 ac.
11. Tayman Park 8/15/49, Res. 57 61.0 ac.	25. Highway #1 9/3/57, Ord. 391. 20.40 ac.	37. Oakleaf Annexation 6/7/65, Res. 68-65 31.0 ac.	49. Ben Byrd Addition 6/21/76, Res. 47-76 1.0 ac.	
12. Sands Park Tract 10/7/49, Ord. 319 10.0 ac.	26. Lion's Club Tract 10/7/57, Ord. 393 2.60 ac.	38. Orbaun Annexation 6/21/65, Res. 71-65 8.0 ac.	50. South Fitch Mtn. #4 10/11/76, Res. 74-76 33.53 ac.	
13. Armory 11/21/49, Ord. 320 2.0 ac.				
14. Sands Park Tract #2 1/3/50, Ord. 322 10.0 ac.				

Source: City of Healdsburg, May 1985.

Agricultural District

The ordinance includes only one agricultural district AG (Agricultural District), which sets a five acre minimum parcel size.

Residential Districts

The ordinance includes four single-family residential districts with minimum lot sizes ranging from 5,000 to 40,000 square feet: R-1-40,000, R-1-20,000, R-1-10,000 and R-1-5,000. The R-2-2,500 (Two-family Residential District) provides for two dwellings on a 5,000 square foot lot. R-M-2,500 (Multi-family Residential District) allows for two dwellings for the first 5,000 square feet of minimum lot area plus an additional unit for each 2,500 square feet of lot area over 5,000. The DRD (Downtown Residential District) has the same lot size and density standards as R-M-2,500.

Office/Multi-Family

O-R-M (Office and Multi-family Residential District) establishes the same requirements as the R-M-1,500 District for residential uses. The ordinance also includes a special district (M-P) for medical and professional services.

Commercial Districts

The ordinance contains four different commercial zoning districts: C-L (Neighborhood Commercial District), C-D (Central Commercial District), C-H (Thoroughfare Commercial District) and C-S (Service Commercial District).

Industrial Districts

The ordinance contains only two industrial districts: M-L (Limited Industrial District) and M-G (General Industrial District).

Special Purpose Districts

The ordinance contains several special purpose districts including P (Public District), H (Hillside Combining District), P-D (Planned Unit Development District), and RMP (Residential Master Plan Combining District). The RMP and P-D Districts have been used both as freestanding and combining districts.

Beside the zoning district classifications, the Healdsburg Zoning Ordinance contains special provisions governing secondary residential units, open space, off-street parking and loading, signs, design and architectural review, home occupations, mobilehome parks and travel trailer parks and noise.

CITY OF HEALDSBURG
ANNEXATION POLICY
October 19, 1981

- I. PRESERVE AND ENHANCE HEALDSBURG'S SMALL TOWN SEMI-RURAL CHARACTER
 - A. The City will not aggressively pursue annexations but will consider applications from property owners in accordance with the principles and requirements set forth in this Annexation Policy.
- II. MAINTAIN CONSISTENCY WITH THE CITY'S GENERAL PLAN AND FURTHER THE GOALS CONTAINED WITHIN THAT PLAN
 - B. No annexation will be considered unless the development proposed for the area under consideration is consistent with the General Plan. Annexations requiring a General Plan Amendment will be considered only when the City Council deems it to be in the public interest and when it can be shown that the City will benefit from the annexation and the change in the General Plan.
 - C. Annexation requests involving proposals for residential development must contribute positively to the City's housing goals as expressed in the Housing Element of the General Plan.
- III. PROVIDE A METHOD BY WHICH AREAS ANNEXED TO THE CITY CONTRIBUTE FINANCIALLY IN A MANNER COMMENSURATE WITH THE REST OF THE CITY
 - D. Areas annexed to the City will pay all costs associated with providing and/or extending city utilities including a buy-in charge to cover a proportionate share of system capacity. The cost of any expansion of system capacity required to serve an area proposed for annexation will be borne by the applicant.
 - E. Areas annexed to the City will pay a fee, to be determined at the time of application, to cover the cost of providing city services other than utilities (e.g., police, fire, recreation, streets, etc.). Dedication of lands or other "non-cash" contributions may be considered in-lieu of fee payments.

The City Council may require the formation of special assessment and/or benefit assessment districts to cover these costs.
 - F. Fees may be adjusted or waived to encourage annexations where a positive financial return to the City can be demonstrated.
- IV. PROVIDE A BASIS FOR THE ORDERLY PLANNING AND DEVELOPMENT, AS WELL AS EFFICIENT UTILIZATION OF CITY SERVICES AND UTILITIES
 - G. Annexation requests which would result in peninsulas or other irregular boundaries will be discouraged. Where such applications have been made, an effort will be made to include additional land or modify the proposed boundaries in order to correct the irregularity.

- H. Annexations which "square-off" existing urban boundaries will be encouraged and the Council may modify annexation fees where such annexations are involved and a determination can be made that the resulting squared boundary provides a significant benefit to the City.
- I. Infill development of property within the existing city limits will be encouraged and annexation requests which involve development proposals for uses which could be accommodated within the existing city limits will be discouraged.
- J. Annexations which eliminate unincorporated islands will be encouraged. The City Council may modify or waive annexation fees where the annexation proposed will result in the elimination of an unincorporated island.
- K. Annexations involving already developed land will be required to bring streets, utilities, etc. to city standards. The City Council may require formation of an assessment district to accomplish this prior to final acceptance of the annexation.
- V. PROTECT AGRICULTURAL USES IN THE AREAS SURROUNDING THE CITY, SPECIFICALLY DRY CREEK VALLEY AND ALEXANDER VALLEY
- L. No annexation requests for land designated as Agriculture on the City's General Plan Land Use Map will be considered except when all of the following conditions are met:
 1. The land under consideration is not currently used for agricultural purposes.
 2. The development proposal which accompanies the annexation request will not involve development on any prime agricultural soils.
 3. The development proposed for the area under consideration must be compatible with agriculture.
- VI. DISCOURAGE URBAN-TYPE DEVELOPMENT IN THE UNINCORPORATED AREAS NEAR THE CITY
- M. The City will express its opposition to Sonoma County regarding any development proposals on property contiguous to the City which are deemed to be urban-level development.
- N. The City will recommend to Sonoma County that any urban-level development proposed in areas within the City's planning area (as shown on the General Plan) but not contiguous to the City, be done in accordance with City standards for streets, storm drains, etc.

EXISTING LAND USE

In late 1984, the City of Healdsburg conducted an inventory of existing land use within the Urban Service Area. City staff relied on aerial photos, building permit information and field surveys in documenting existing land use. The Fitch Mountain Area was not surveyed as part of the study. The numerous land use codes used in the inventory were consolidated into 10 categories and these ten categories were then mapped as shown in Figure I-5.

The Consultant Team used this information to develop Table I-3, which shows the acreage in each zoning category, developed acreage, vacant land, and agricultural or essentially vacant land. According to Table I-3, approximately 82 percent of the incorporated land within the Healdsburg city limits is already developed. The rest of the land is either vacant (13 percent) or used for agricultural purposes or only partially developed (5 percent).

The table does not show the amount of land devoted to each use within each zone. While most zones are developed with allowable uses (e.g., single-family residences in R-1 zones), non-conforming uses within each zone were not separated out. Most of these non-conforming uses are located in commercial zones (e.g., light industrial in the C-S Zone).

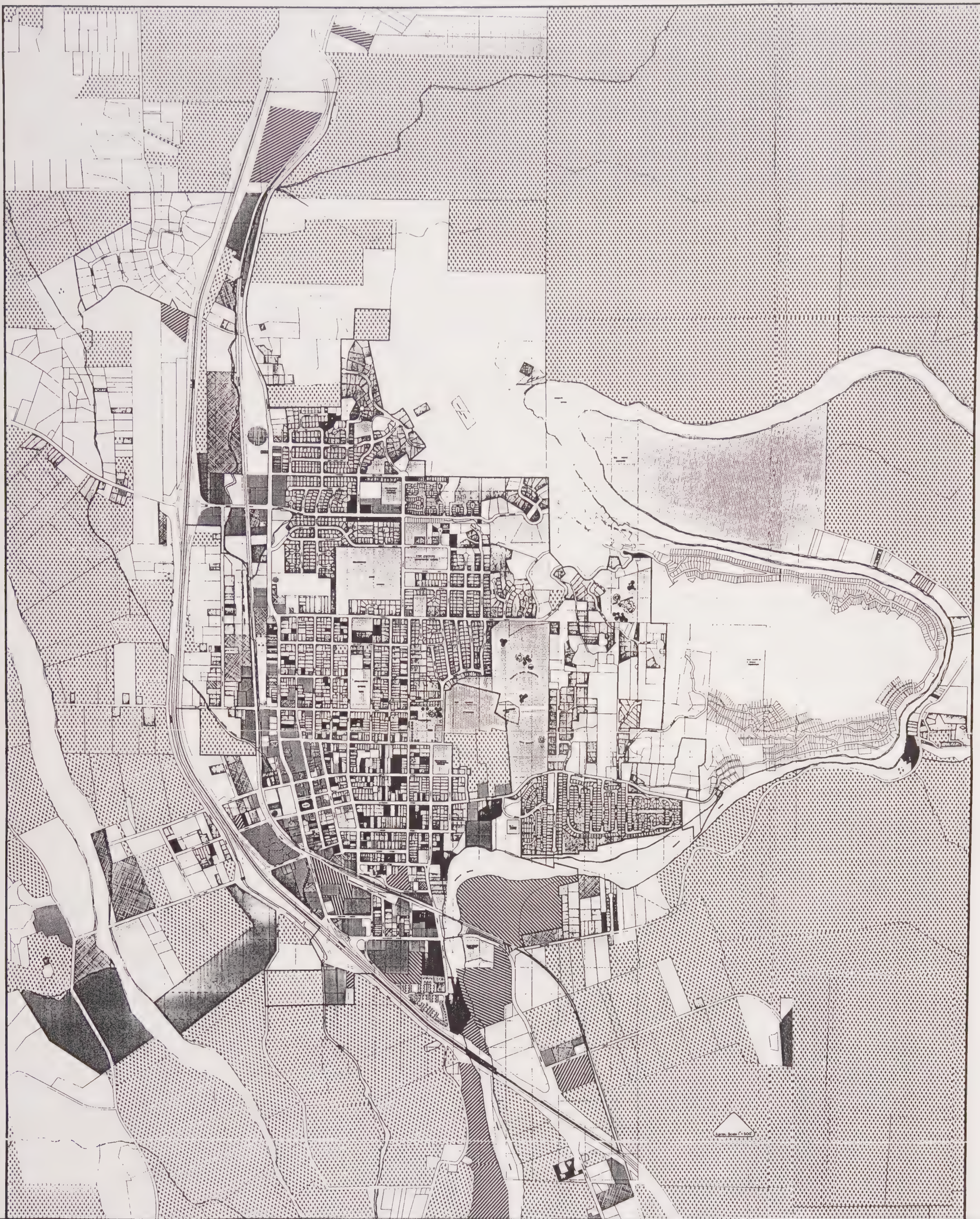
No calculations of the land use within the Urban Service Area but outside the city limits were made. In the Fitch Mountain Area, the steeper slopes and higher elevations are undeveloped, while the lower slopes and the area next to the Russian River are developed with homes, many of which are not occupied year-round. The unincorporated Grove Street area contains a mixture of homes, a convalescent hospital, and commercial and industrial uses. Most of the area north of the city limits is devoted to agricultural use with a few homes scattered throughout the area.

Both inside and outside the Planning Area, the City of Healdsburg owns a substantial amount of land. City-owned land is shown on Figure I-6 and summarized in Table I-3.

LOCAL AGENCY FORMATION COMMISSION AND HEALDSBURG'S SPHERE OF INFLUENCE

In 1985, the various state laws regulating city and special district organization and annexations were consolidated in the Cortese/Knox Local Government Reorganization Act (Government Code Section 56000 et seq.).

The 1963 Knox-Nisbet Act, which was superseded by the new law, created local agency formation commissions (LAFCOs), made up of local officials, in each county in California to regulate the organization and extension of services by cities and special districts. The Act declares "among the purposes of the commission [Local Agency Formation Commission] are the discouragement of urban sprawl and the encouragement of the orderly formation and development of local governmental agencies based upon local conditions and circumstances. One of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local governmental agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities" (Government Code Section 56301). In meeting its responsibility, LAFCO is required "to review and approve or disapprove, with or without amendments, wholly, partially, or conditionally, proposals for":



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

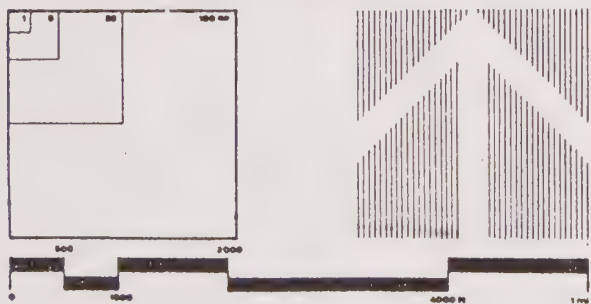
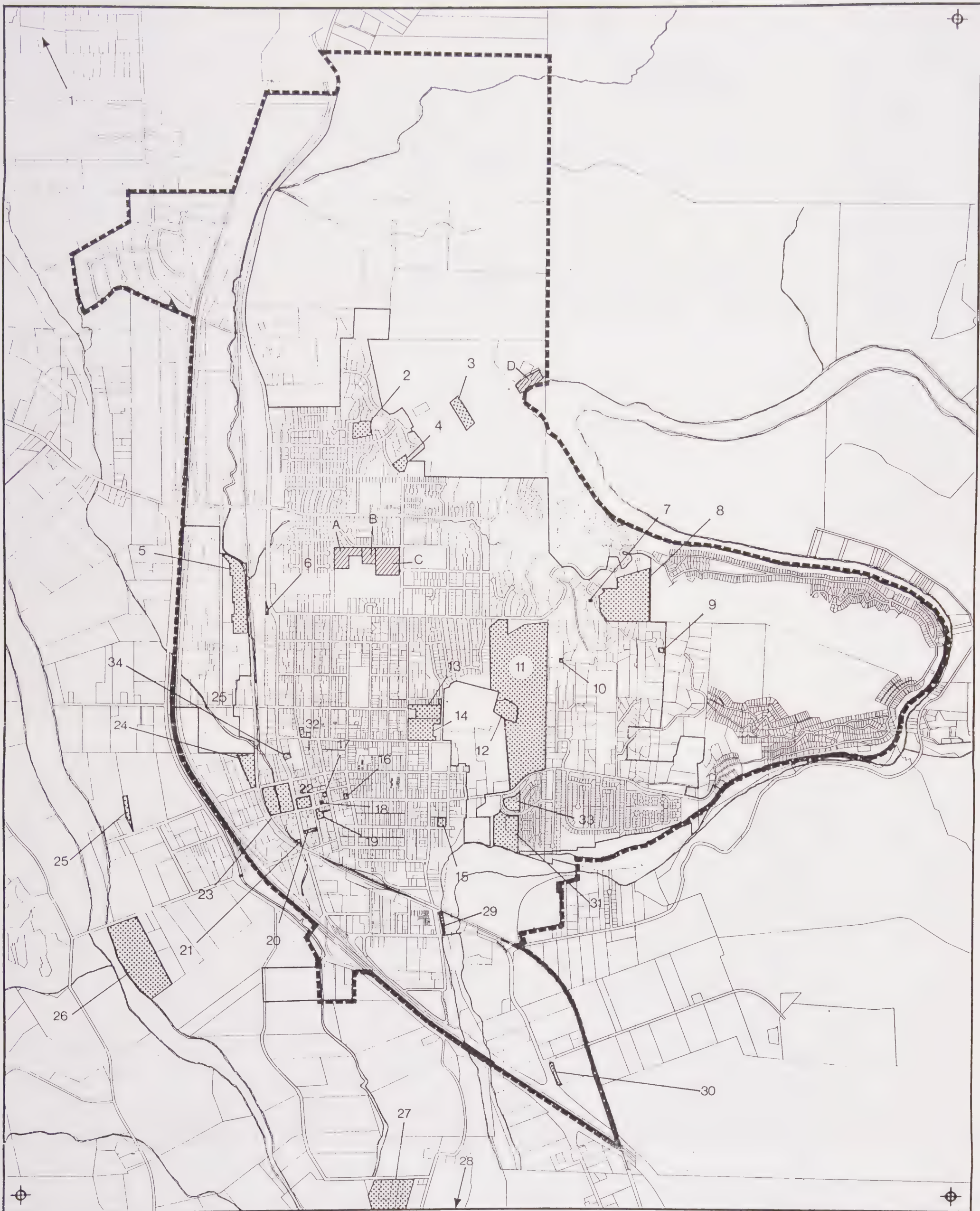


Figure I-5 EXISTING LAND USE

- | | |
|---------------------------|------------------|
| Vacant Land | Light Industrial |
| Rural Residential | Heavy Industrial |
| Single-Family Residential | Agriculture |
| Multi-Family Residential | Institutional |
| Commercial | Mixed Use |

Source: City of Healdsburg, 1985



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

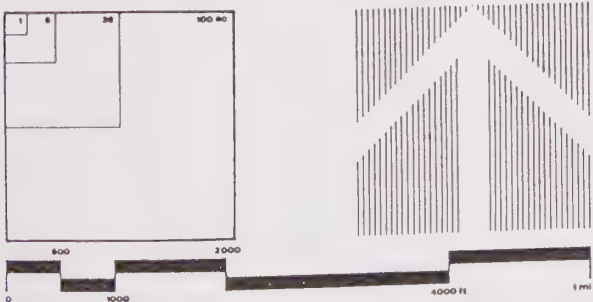


Figure I-6. CITY-OWNED LAND

- | | |
|-----------------------------|--|
| 1. Municipal Airport | 18. Senior Center |
| 2. Gibbs Park | 19. City Hall Complex |
| 3. Iverson Reservoir | 20. City Parking Lot * |
| 4. Fire House Lot | 21. Chamber of Commerce |
| 5. Detention Basin | 22. Plaza |
| 6. Leftover Right-of-Way * | 23. West Plaza Project Site * |
| 7. Tank Site | 24. Northwestern Pacific Railroad Parcel * |
| 8. Villa Chanticleer | 25. Dry Creek Wells |
| 9. Sunset Tank Site | 26. New Corporation Yard |
| 10. Tank Site | 27. Sewer Pump Station |
| 11. Tayman Park/Golf Course | 28. Sewer Treatment Plant |
| 12. Oak Mound Reservoir | 29. Railroad Park |
| 13. Giorgi Park | 30. Old Redwood Hwy Frontage |
| 14. Recreation Park | 31. Old Corporation Yard/Substation |
| 15. 2nd & Tucker | 32. New Library Site |
| 16. Library | 33. Fitch Mountain Terrace (Phase I) Site |
| 17. City Parking Lot * | 34. City Parking Lot |



CITY LEASED LAND

- A. Swimming Pool
B. Tennis Courts
C. Monte Vista Park Ball Fields
D. Well Field

* Owned by Redevelopment Agency

Source: City of Healdsburg, September 1986

TABLE I-3
EXISTING LAND USE BY ACREAGE IN
EACH ZONING DISTRICT¹
January 1985

	<u>Total Acres</u>	<u>Developed</u>	<u>Vacant</u>	<u>Agricultural or Essentially Vacant²</u>
AG	35.1	0	0	35.1
R-1-40,000	106.1	88.6	17.5	0
R-1-20,000	106.1	70.7	35.4	0
R-1-10,000	23.4	16.1	7.3	0
R-1-10,000-H	62.8	51.5	9.7	1.6
R-1-10,000-PD	72.0	57.0	15.0	0
R-1-6,000-PD	64.4	64.4	0	0
R-1-5,000	261.3	239.9	10.7	10.7
R-2-2,500	71.7	70.4	0.9	0.4
RM-2,500	0	0	0	0
DRD	148.9	141.3	7.6	0
ORM	37.3	35.9	1.4	0
M-P	8.8	5.9	2.9	0
CL	21.2	15.7	3.5	2.0
CD	96.1	89.7	5.7	0.7
HC	77.4	49.5	27.9	0
CS	71.1	49.8	21.3	0
ML	176.5	140.6	19.4	16.5
MG	367.2	270.9	58.9	32.4
P	179.9	164.5	15.4	0
PD	55.6	55.1	.5	0
RMP	.6	.6	0	0
	<hr/> 2,038.6 ³	<hr/> 1,678.1	<hr/> 271.1	<hr/> 99.4

¹ Includes only the incorporated area within the Planning Area.

² Includes parcels devoted to agriculture and parcels where only 25 percent or less is the area developed.

³ This figure is slightly less than the 2,063 acres shown in Table I-1. In some cases streets were excluded in the calculations of acreage within zoning districts.

Source: Consultant Team Estimates, April 1985.

TABLE I-4

CITY-OWNED LAND
September 1986

1. Municipal Airport	50.00 acres	18. Senior Center	0.11 acres
2. Gibbs Park	2.43 acres	19. City Hall Complex	0.71 acres
3. Iverson Reservoir	2.97 acres	20. City Parking Lot*	0.50 acres
4. Fire House Lot	1.23 acres	21. Chamber of Commerce	0.11 acres
5. Detention Basin	9.20 acres	22. Plaza	1.17 acres
6. Leftover Right-of-Way*	0.10 acres	23. West Plaza Project Site*	6.29 acres
7. Tank Site	0.10 acres	24. Northwestern Pacific Railroad	3.80 acres (1.0 for road R.O.W.)
8. Villa Chanticleer	16.96 acres	25. Dry Creek Wells	1.0 acres
9. Sunset Tank Site	0.05 acres	26. New Corporation Yard	14.85 acres
10. Tank Site	0.10 acres	27. Sewer Pump Station	5.33 acres.
11. Tayman Park/Golf Course	61.00 acres	28. Sewer Treatment Plant	3.40 acres
12. Oak Mound Reservoir	3.40 acres	29. Railroad Park	0.15 acres
13. Giorgi Park	3.51 acres	30. Old Redwood Highway Frontage	0.17 acres
14. Recreation Park	3.75 acres	31. Old Corporation Yard/Substation	11.10 acres
15. 2nd and Tucker	0.61 acres	32. New Library Site	0.83 acres
16. Library	0.21 acres	33. Fitch Mountain Terrace (Phase II) Site	2.00 acres
17. City Parking Lot (Existing)*	0.50 acres	34. City Parking Lot*	0.30 acres

* Owned by the Redevelopment Agency

Source: City of Healdsburg, September 1986

Cities

- Incorporation of cities.
- Annexation of territory to cities.
- Detachment of territory from cities.
- Disincorporation of cities.
- Consolidation of two or more cities.
- Municipal reorganizations.

Districts

- Formation of special districts.
- Annexation of territory to special districts.
- Detachment of territory from special districts.
- Dissolution of special districts.
- Merger of special districts with a city.
- Establishment of a special district as a subsidiary district to a city.
- Consolidation of a special district.
- District reorganizations.

The special districts that fall under LAFCO jurisdiction are defined in Government Code Section 56036. School districts, maintenance districts and redevelopment agencies are not included within this definition and are, therefore, not subject to LAFCO review.

In addition to the regulatory responsibilities of LAFCO, the Commission is empowered to initiate and to make studies of existing governmental agencies. These studies include but are not limited to inventorying local agencies and determining their maximum service areas and service capabilities.

The Sonoma County LAFCO is made up of five members: two county supervisors, two city council members, and one public member appointed by the other four.

As the basis in part for making decisions about organizational changes and annexations, LAFCO must adopt spheres of influence for each local agency subject to LAFCO regulation. The Cortese/Knox Act defines a sphere of influence as "a plan for the probable ultimate physical boundaries and service area of a local governmental agency" (Government Code Section 56076). In practice, "ultimate" is typically defined as 20 years.

In determining the sphere of influence for each local agency, the Commission must consider and prepare a written statement of its determinations with respect to each of the following:

1. The present and planned land uses in the area, including agricultural and open space lands.
2. The present and probable need for public facilities and services in the area.
3. The present capacity of public facilities and the adequacy of services which the agency provides or is authorized to provide.

4. The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

Once these spheres are adopted, LAFCO decisions must be consistent with the applicable spheres (Government Code Section 56377.5). This means that city annexations cannot occur outside the adopted sphere of influence.

In 1982, the City of Healdsburg commissioned its own sphere of influence study. The study, prepared by Common Ground Land Planning Services, was forwarded to the Sonoma County LAFCO in 1983 as the City's sphere recommendation. The sphere recommendation was based principally on the City's 1978 General Plan and a 1979 City-County agreement on urban boundaries. The City's original proposal to LAFCO included an area west of Highway 101 north of Dry Creek Road known as Amity Hill but excluded unincorporated Fitch Mountain. In adopting the sphere of influence for Healdsburg in July 1983, LAFCO deleted the Amity Hill area but included Fitch Mountain. The City of Healdsburg has used the LAFCO-adopted sphere as its "Urban Service Area" boundary line, as depicted in Figure I-2.

COUNTY PLANNING AND LAND USE REGULATIONS

The County of Sonoma's General Plan and zoning regulate land use in the unincorporated Healdsburg Planning Area. The current County General Plan was adopted in January 1978 and amended in September 1979. Sonoma County is currently updating its General Plan with a draft of the revision expected to be completed mid-1986. While there is no statutory requirement that city general plans be consistent with the county general plan, Sonoma County's General Plan provides a context for Healdsburg land use planning, and coordination between the City and County General Plans is essential for orderly development within the Healdsburg Planning Area.

Of particular importance to Healdsburg planning are Sonoma County General Plan policies that direct urban development to existing urban centers and policies that promote protection of agricultural lands. The County's General Plan Land Use Element includes the following policies concerning urbanization:

It shall be the goal of Sonoma County to accommodate both urban and rural life styles. This should be accomplished by commitments to the following: a community-centered concept, provision of green belts surrounding and separating urban areas, retention of agricultural resources, adherence to the principle of environmental suitability, and preservation of our natural resources:

Policies:

- a. Encourage a pattern of growth that maintains the existing range of types of communities: the unincorporated villages and towns and the incorporated cities.
- b. Preserve the identities of present communities.

- c. Formulate an ongoing program for open space around and within cities in order to provide visual relief from urban densities.
- d. Promote compactness of all community boundaries in order to reduce the cost of providing urban-level services.
- e. Guide rural-residential development so that: i) such areas do not require urban-level public services at a future time, (ii) such areas are responsible for providing the public-service improvements that are required, (iii) people of low or moderate income are not excluded from rural living, (iv) rural living is a possible alternative between urban and agricultural densities, and (v) the major-subdivision process is favored over the minor-subdivision process in rural development.
- f. Encourage urban residential development (densities greater than one unit per acre) only within incorporated cities or unincorporated communities as designated on the Land Use Plan Map.

These urban policies are buttressed by a series of policies supportive of agricultural values:

J. Agriculture:

- 1. It shall be the goal of Sonoma County to protect and maintain agricultural land for the value of its products, its economic impact on the county, its contribution to community life, and its environmental values.

Policies

- a. Tailor appropriate regulations and programs to recognize the diversity of Sonoma County's agriculture.
- b. Support policies and programs providing tax and economic incentives that will ensure the long-term retention of agricultural lands.
- c. Monitor agricultural production areas for change of use or emerging problems...
- f. Restrict residential uses in designated agricultural areas unless it is shown tht they will be compatible with agriculture.
- g. Encourage parcel sizes sufficient to provide productive, economic agricultural use.
- h. Promote agricultural practices consistent with long-term conservation of the County's agricultural capability...derived from agricultural activities.
- j. Promote agricultural practices that protect environmental quality and conserve resources.

- k. Generate criteria with the assistance of the agricultural community to permit nonagricultural uses in agricultural areas.
- l. Establish buffer areas between urban and agricultural areas where appropriate.

The Sonoma County General Plan also includes more specific land use policies for each of the nine "planning areas" within the County (the Healdsburg "planning area" includes Windsor, Geyserville and large areas both east and west of Healdsburg):

THE HEALDSBURG PLANNING AREA

The Healdsburg planning area is environmentally diverse. Natural-resource uses, such as vineyards, orchards, gravel extraction, and recreation dominate the landscape and economy. Healdsburg and Windsor are the two urban centers in the planning area, and each is expected to grow significantly during the next twenty-five years. Windsor may become the county's ninth incorporated city.

Agriculture in the Healdsburg Peninsula Area

The land-use plan designates the area known as the "Healdsburg Peninsula" as agricultural, because of its productivity and its environmental limitations to urban development. The fact that the peninsula could be serviced by the sewer lines that cross it could complicate implementation.

Recommendation:

- 3.52. The County should work with the City of Healdsburg to reach agreement on urban-boundary designations and to maintain densities compatible with agricultural use.

The Western Boundary of Healdsburg

Presently Highway 101 forms a barrier to Healdsburg's urban growth to the west. Three roads, Chiquita, Dry Creek, and Westside, cross that barrier, and some form of residential development occurs west of the freeway along the three roads. The land-use plan recognizes the existing residential development by designating certain areas on Chiquita and Westside Roads as cities and the area along Dry Creek Road as agricultural and residential.

Recommendations:

- 3.53. Existing residential development north of Westside Road should be served by a sewer; capacity of the lines should be of a size to serve only the area designated for urban expansion.

- 3.54. The part of the Chiquita Road area within the urban-expansion area proposed in the land-use plan should be served by a sewer if and when the City of Healdsburg determines that annexation is appropriate; north of the urban expansion area, rural densities should prevail.
- 3.55. In the Dry Creek Road area, parcels should be of a size that sewer or water services are not required.
- 3.56. In the Dry Creek Road area, development guidelines are needed to protect agriculture.

. . .

Areas of Agriculture and New Rural-Residential Development

Throughout the planning area are valuable agricultural lands. Much of the new rural-residential development in this planning area is expected to occur near these lands. Development along Chiquita, Alexander Valley, Bailhache, and Eastside Roads and around Windsor are examples of residential land use in close proximity to agricultural land use.

Recommendations:

- 3.59. Agricultural lands should be stabilized by large-lot zoning.
- 3.60. Most of the projected rural growth should be accommodated on existing parcels or in already committed areas, so that agriculture is not jeopardized.

Resource Management and Other Environmental Concerns

Along the Russian River are commercial gravel deposits that should be managed in a manner that ensures a continuing supply of sand and gravel and protects the river's environmental quality. Russian River flooding is a recurrent problem in this area.

Recommendations:

- 3.61. Sand-and-gravel extraction should be conducted according to recommendations in the "mineral resources" section of the conservation element.
- 3.62. Floodplain zoning should be established on the 100-year floodplain.

Windsor Incorporation

Recommendation:

- 3.63. An incorporation statement should be prepared and a development phasing-and-monitoring plan established for Windsor.

While the County's General Plan Land Use Plan (Diagram), at one inch equals three miles, is not detailed enough to show the boundaries of land use categories precisely, proposed land use in the Healdsburg Area can be described generally. The Land Use Plan map shows incorporated Healdsburg extending west to Highway 101, breaching the freeway only to include the area in the Peninsula Area presently within the city limits. The "Incorporated City" designation extends north as far as Alexander Valley Road, but excluding the Chiquita Road area, which is shown as "Rural Residential" (1-5 acres per dwelling unit). Approximately half (the west half) of the unincorporated Planning Area north of the present city limits is shown for incorporated development. The eastern half is designated "Undeveloped" (forest and grasslands). While the higher elevations of Fitch Mountain are shown as "Undeveloped," the base of the mountain around the Russian River is designated "Rural Residential." The southern part of the city on both sides of Old Redwood Highway is designated "Agriculture and Residential" (10-20 acres per dwelling unit).

Clearly, the County General Plan took a much more conservative view of future land use than did the City's 1978 General Plan. Despite this conservative perspective, the Sonoma County General Plan projected Healdsburg population at 14,500 by the year 2000.

Prompted by a number of problems with the existing land use planning and regulation framework, Sonoma County is currently undertaking a comprehensive revision of their 1978 General Plan. While many of the 1978 General Plan policies will be reconsidered, several concepts in the existing Plan, according to the Planning Department's work program, would be utilized in formulating the new Plan:

- Utilization of a city- and community-centered approach for future growth.
- Promotion of compact patterns of city and community growth (i.e., discouragement of "leap-frog" development and "sprawl."
- Maintenance of distinct community identities through open space separation between communities.
- Preservation of agricultural lands and the agricultural economy.
- Utilization of environmental suitability criteria in locating future urban and rural growth.
- Phasing or sequencing of growth with provision of adequate public facilities and services.

- A close correlation of permitted land uses and public facilities/services with projected population-employment targets.
- Accommodation of diverse residential environments in the various parts of the county.

The revised County General Plan will also include several important structural and format improvements, including development of detailed land use plan maps for each of the nine planning areas in the County.

A first step in the revision process has been the development of revised population projections for each planning and urbanized area. The proposed General Plan Amendment projects a population for incorporated Healdsburg of 9,500 by 1990 and 13,000 by the year 2000. The new projection for the year 2000 is down 1,500 from the 1978 Plan's projection.

MAJOR REGIONAL DEVELOPMENTS AFFECTING HEALDSBURG

Three major regional developments in the area will have significant impact on Healdsburg in establishing land use policy for the future: Lake Sonoma, the Geysers and Windsor.

Lake Sonoma/Warm Springs Dam

The construction of Warm Springs Dam was originally authorized by the Federal Flood Control Act of 1962. Construction of the dam by the U.S. Army Corps of Engineers was completed in 1983 and development of recreational facilities will continue for many more years.

The dam is a rolled earth embankment located at the confluence of Warm Springs Creek and Dry Creek, approximately 14 miles northwest of Healdsburg. Warm Springs Dam created Lake Sonoma with a capacity of 381,000 acre feet of water at the spillway crest elevation of 495 mean sea level (msl). Lake Sonoma, when it is full, will have a surface area of 3,600 acres, extend 12 miles up Dry Creek and seven miles up Warm Springs Creek, and create 73 miles of shoreline.

The Lake Sonoma Master Plan prepared in 1978 provides for a broad range of recreational uses and an extensive set of recreational facilities. At full build out of the proposed recreation facilities, Lake Sonoma is expected to attract as many as 2.5 million visitors annually by the year 2020. Funding for the full range of facilities proposed in the Master Plan, however, is not assured.

The first of Lake Sonoma Recreational Area facilities, a private marina with a boat launching ramp, was officially opened in May 1985. Additional facilities including campgrounds and beaches will be developed over the next five years, as funding is provided by both the federal government and Sonoma County.

Even if projected visitor projections are not fully realized, Lake Sonoma will have a major impact on Healdsburg. For visitors coming from the south, Healdsburg is the last opportunity for gas, food and other supplies. This will mean significant retail sales and increased sales tax revenues for the

City. The demand for these services will be strongest at the Dry Creek Road-Highway 101 off-ramp, whether visitors choose to use the Dry Creek Road entrance or the Geyserville entrance to Lake Sonoma, several miles to the north. Beside the demand for increased highway-oriented services (i.e., food, gas) at Dry Creek Road, some Lake Sonoma visitors can be expected to seek out services along Healdsburg Avenue and in downtown Healdsburg.

The Geysers

The Geysers is a 600 square mile geothermal development area (Known Geothermal Resource Area, or KGRA for short) located approximately 25 miles northeast of Healdsburg. The major portion of the Geysers KGRA is located in Lake County, but it also extends into the counties of Sonoma, Napa and Mendocino. The majority of the geothermal resource development in the Geysers has taken place in the vicinity of an old hot springs resort, "The Geysers Resort," in Sonoma County.

During the 1960s, four power plants, producing 78 megawatts (MW) of power, came into operation at the Geysers. During the 1970s, the number of power plants increased by nine and the power produced increased by 589 MW. Recent (1983) estimates indicate an additional 19 power plants will be developed during the 1980s producing an additional 1,638 MW of power. Projections for the 1990s indicate another 7 power plants could come on-line, producing an additional 513 MW.

The most direct access to the Geysers from Sonoma County is by way of the Healdsburg-Geysers Road from State Highway 128, north of Healdsburg near Jintown in the Alexander Valley. Driving time between Healdsburg and the Geysers development is approximately 40 minutes. Healdsburg is the closest city in Sonoma County to the Geysers in terms of driving time.

In trying to assess the socioeconomic impacts of future development at the Geysers the California Energy Commission analyzed two possible development scenarios. Under the first scenario, all plants presently planned would be constructed, primarily in Sonoma County. This scenario projects construction activity falling off sharply in the early 1990s. The second scenario is an extension of Scenario 1 to the currently hypothetical ultimate buildout of the dry steam resource at the Geysers. Under this scenario, construction activity would continue into the late 1990s but the later plants would be constructed primarily in Lake County.

Because of Healdsburg's proximity to the Geysers, a number of businesses serving the Geysers have located in the city, primarily in the Dry Creek Road area. Under either one of the development scenarios described above, Healdsburg can probably expect a modest increase in demand for land and offices for Geyser related businesses during the next few years. As construction activity winds down in the early 1990s or shifts to Lake County, this demand may slaken, although there will be a continuing, but probably stable, demand for industrial land and office space in Healdsburg to house business connected with the ongoing operation and maintenance of the Geysers.

Geysers development also affects the circulation system in Healdsburg since many of the trucks traveling to the Geysers use Dry Creek Road and upper Healdsburg Avenue.

Windsor

Windsor, an unincorporated community eight miles south of Healdsburg on Highway 101 shows tremendous growth potential. With a current population of approximately 7,000, Windsor is projected to grow to approximately 24,000 by the year 2005, according to the County Planning Department. In the late 1970s there was an attempt to incorporate Windsor, but the effort was defeated at the incorporation election.

Interest in incorporation has recently been renewed, and the County in 1986 completed a study of the fiscal feasibility of such an incorporation. In 1986, the County also adopted a specific plan for the Windsor Area. The issue of incorporation may soon be put before the voters of the Windsor area once again.

Whether Windsor incorporates or not, the area will continue to grow and will develop a much broader retail base, affecting Healdsburg retail growth potential as discussed in Chapter IV, Economic and Fiscal Considerations.

REGIONAL PLANS

This section discusses two regional plans with significance for Healdsburg land use planning: the Sonoma County Airport Land Use Plan and the ABAG Regional Land Use Plan.

Airport Land Use Plan

Under various provisions of state law, cities and counties are required to either bring their general plans and any specific plans into compliance with the adopted County Airport Land Use Commission (ALUC) plan for the territory around designated airports or to make specified findings. The purpose of the airport land use plan and the consistency requirement is to eliminate or minimize development around airports that would be subject to significant levels of aircraft noise or would pose a safety hazard to aircraft or occupants of the development in the event of a plane crash.

In 1981, the Sonoma County Airport Land Use Commission (ALUC) adopted an Airport Land Use Policy Plan. As part of the Plan, the ALUC established a "Primary Referral Area Boundary" around each airport to identify the areas in which development proposals would be subject to ALUC review and approval.

For the Healdsburg Municipal Airport, the ALUC established a Primary Referral Area that extends into incorporated Healdsburg and the Healdsburg Planning Area only in the western part of the Chiquita Road Area. (See Figure I-7.) This area is fully subdivided and largely built out. Consequently, the ALUC plan should not operate as a constraint on development anywhere in the Planning Area.

ABAG Regional Plan

The Association of Bay Area Governments (ABAG) has been designated by the State and federal government as the areawide planning agency for the nine-county San Francisco Bay planning region. While ABAG, a voluntary association of cities and counties, does not exercise direct regulatory control over local land use and development matters, ABAG does carry out regional planning programs for land use, housing, open space and environmental quality. In some cases, state and federal agencies require local actions to be consistent with regional plans, or at least be reviewed for consistency. ABAG's primary policy document is the Regional Plan 1980. The Plan is a broad policy document, but does contain "regional strategies," particularly concerning urban development and open space, that are relevant to Healdsburg's General Plan:

A. URBAN DEVELOPMENT

1. The Bay Area and its communities should be organized into a City-Centered region.
2. Accordingly, urban growth in the region should be guided into or around existing or new communities in accordance with the broad framework proposed in this Plan.
3. Living, working, and shopping within the same community should be planned and promoted by all levels of government and the private sector. To make this possible, a wide range of well-serviced residential units convenient to urban centers of employment will be required. The need for long commuting should be reduced.
4. Urban development should be organized to promote communities of sufficient scale to attract and support a wide range of convenient services and facilities and to provide focal points for wider regional identification.
5. Policies for open space, water, sewage, and transportation should be coordinated to guide the timing, location, growth, and, wherever necessary, the limits of urban development.
-
7. Communities should evolve through the organizing and strengthening of existing developed parts of the region and through addition of planned new communities. Open space should be selectively acquired or reserved through development rights for the purposes of shaping and serving urban growth in accordance with the policy for a City-Centered Bay Region.

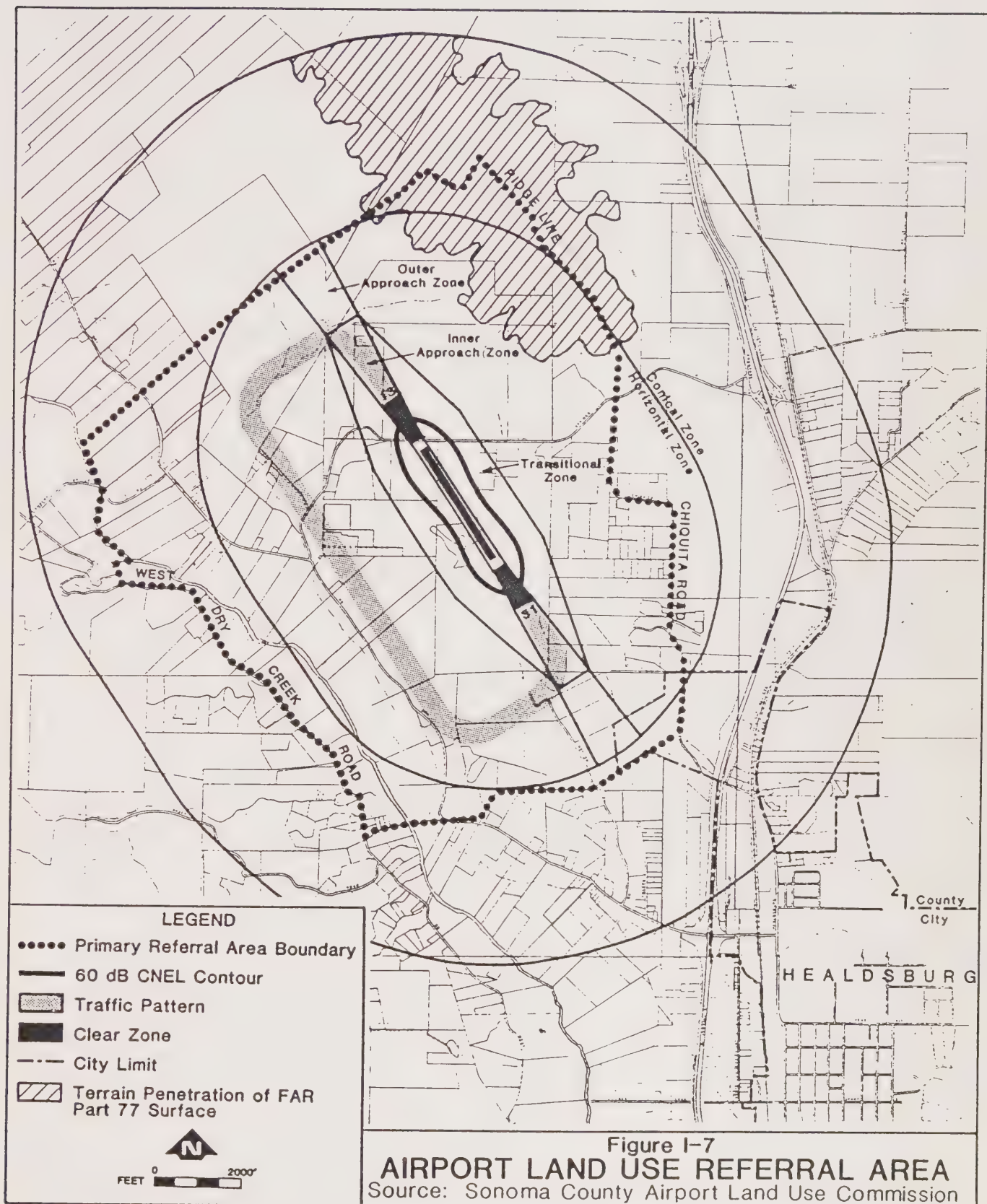


Figure I-7
AIRPORT LAND USE REFERRAL AREA
 Source: Sonoma County Airport Land Use Commission

8. Controlled development areas should be located around the urban fringe of each community to provide, if needed, holding zones to permit the orderly extension of urbanization or the creation of new communities. Land scheduled for early use should be released in units of neighborhood size or larger, and unified planning and design concepts should be applied in order to prevent wasteful, unattractive, and ecologically damaging scattered development.
9. Each community should center around a core of intense activity where commercial, governmental, cultural, recreational, health, and educational services are provided.
10. Existing community centers which are becoming blighted should be rebuilt through coordinated policies and programs at all levels of government. This rebuilding should involve both private and public interest.

. . .

C. OPEN SPACE

1. Planning and management of the regional open space system is a prime responsibility of the Association.

First priority should be given to securing open space within and immediately around the urbanized space as depicted in the Regional Plan diagram.

2. Open space should be planned and managed to serve more than one function at the same time. These functions include managed resource production; natural and human resources preservation; human health, welfare and well-being; public safety; intraregional communication and service corridors, open space reserves (to maintain future options), and city-forming purposes.
3. Land preserved in open space for future controlled urban development should be released beyond 1990 as development pressure grows. The extent of the pressure should be determined at the local and regional levels. This land should be left in open uses for as long as possible or be included as part of the permanent open space system.

FINDINGS

- The 1978 General Plan has been the official development guide for the City of Healdsburg for seven years. The existing plan has several problems that have diminished its effectiveness as a development guide. First, the policy language of the Plan is overly general, and the Plan contains little direction for implementation. Second, the Plan's land use diagram is drawn very broadly, leaving too much latitude for interpretation. The precise boundaries of the various land use categories shown on the land use diagram have been a constant source of confusion and controversy.

To meet the requirements of state law and to provide clear direction for future land use decisions, the new General Plan should include (1) clear and concise policy language; (2) a detailed outline of proposed implementation measures; (3) a diagram of proposed land uses clearly delineating the boundaries of land use categories; (4) clear statements of intent and allowable uses for each land use category; and (5) clear standards for population density and building intensity.

- The City's current zoning structure has evolved piecemeal over the years. As a consequence, the text contains archaic language, erroneous references, inconsistencies and inadequate development standards. The revised General Plan should, at a minimum, include a broad outline of revised structure for the zoning ordinance and should also recommend that new provisions to be included in a new zoning ordinance to be developed following adoption of the General Plan.
- The 1981 Sotoyme Redevelopment Plan is very broad in its policies and land use prescriptions. While there is much latitude within the plan to accommodate changes in a new General Plan, special attention must be paid to the impact of the new General Plan on the Redevelopment Plan and changes should be made in the Redevelopment Plan where necessary.
- Within the Healdsburg Planning Area, the City has a substantial amount of vacant and unincorporated land to accommodate growth for the foreseeable future. Approximately 18 percent of the area within the existing city limits is vacant, essentially vacant or currently devoted to agriculture. Outside the city limits but within the Planning Area, there are approximately 800 acres available for future development, excluding the Fitch Mountain area and the Grove Street Area.

Within the city limits, there is little residentially zoned land available, while the supply of commercially and industrially zoned land appears to be adequate to meet expected demand for the foreseeable future.

- While there are some major differences between the existing City and County General Plans, the current revisions of both plans afford the City and the County the opportunity to closely coordinate their planning and land use designation for the Healdsburg area. No major policy shifts are expected in County policy as it affects Healdsburg as a consequence of the County General Plan update.

- Lake Sonoma Recreational Area is expected to eventually attract as many as 2.5 million visitors a year. For visitors coming from the south, Healdsburg is the last opportunity for gas, food, and other supplies. The demand for these services will be felt most strongly at the Dry Creek Road-Highway 101 off-ramp, whether visitors choose to use the Dry Creek Road entrance or the Geyserville entrance to Lake Sonoma. Beside the demand for increased highway-oriented services at Dry Creek Road, some Lake Sonoma visitors can be expected to seek out services along Healdsburg Avenue and in downtown Healdsburg.
- Geothermal power plant construction at the Geysers is projected to continue well into the 1990s. Because of Healdsburg's proximity to the Geysers a number of geothermal-related businesses have located in the city. Over the next few years Healdsburg can probably expect a modest increase in demand for land and office space for construction businesses connected to the Geysers. Over the long-term, Healdsburg will likely continue to be home for a number of businesses connected with ongoing operation and maintenance of the Geysers.
- Windsor will continue to grow whether it incorporates or not. Population growth in Windsor means that there will also be significant expansion of retail business in Windsor, thus likely reducing retail purchases made in Healdsburg by Windsor residents.

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CHAPTER II

HOUSING

INTRODUCTION

Under the requirements of state law, every city and county must prepare a housing element as part of its general plan. The housing element must document in detail the existing housing stock and existing and projected housing needs. Responding to these requirements, this chapter profiles the existing housing, assesses existing and projected needs, analyzes resources available to meet these needs, and reviews governmental and non-governmental constraints on the production of affordable housing. Appendices to this chapter summarize available housing programs and special state housing requirements.

HOUSING STOCK PROFILE

Housing Stock Growth and Composition

Between 1970 and 1980 the number of housing units in Healdsburg increased from 2,049 to 2,985, or by 936 units. According to California Department of Finance estimates, between 1980 and 1987, the City's housing stock increased another 574 units, to a total of 3,559.

TABLE II-1
CHANGE IN HOUSING STOCK COMPOSITION
City of Healdsburg
1970 - 1987

	<u>Total DUs</u>	<u>Single Family (%)</u>	<u>Multifamily* (%)</u>	<u>Mobilehomes (%)</u>
1970	2,049	1,634 (79.7)	355 (17.3)	60 (3.0)
1980	2,985	2,251 (75.4)	653 (21.9)	81 (2.7)
1981	3,036	2,298 (75.7)	657 (21.6)	81 (2.6)
1982	3,124	2,372 (75.9)	669 (21.4)	83 (2.6)
1983	3,130	2,376 (75.9)	670 (21.4)	84 (2.6)
1984	3,225	2,460 (76.3)	678 (21.0)	87 (2.7)
1985	3,359	2,592 (77.2)	680 (20.2)	87 (2.6)
1986	3,470	2,703 (77.9)	680 (19.6)	87 (2.5)
1987	3,559	2,774 (77.9)	695 (19.5)	90 (2.5)

* Two or more units.

Sources: U.S. Bureau of the Census; California Department of Finance.

TABLE II-2
HEALDSBURG HOUSING PROFILE
1980

Housing Units

Total number of units	2,985
Year-round housing units	2,980

Housing Type (Total Units)

Single-family units	2,251
2 units	177
3 or 4 units	178
5 or more units	298
Mobilehomes	81

Occupancy (Year-round units)

Occupied units	2,885
Vacant units	95

Tenure (Occupied units)

Owner-occupied	1,739
Renter-occupied	1,146

Persons Per Room (Occupied units)

1.00 or less	2,772
Owner-occupied	1,697
Renter-occupied	1,075
1.01 - 1.50	68
Owner-occupied	32
Renter-occupied	36
1.51 or more	45
Owner-occupied	10
Renter-occupied	35

Year Structure Built (Year-round units)

1970-1980 (March)	927
1960-1969	515
1950-1959	566
1940-1949	389
1939 or earlier	589

Source: U.S. Bureau of the Census, 1980 Census.

Outside the city limits but still within the Urban Service Area, there are approximately 413 additional dwelling units, bringing the total to 3,972 dwelling units as of January 1, 1987.

According to City building records, building permits were issued for 478 single-family units and 61 multifamily units between 1980 and June 30, 1986. During this same period the City issued 11 demolition permits.

TABLE II-3

RESIDENTIAL BUILDING AND DEMOLITION PERMITS ISSUED 1980-1986*
City of Healdsburg

	<u>Total New Units</u>	<u>Single Family</u>	<u>Multifamily</u>	<u>Demolition</u>
1980	8	8	0	0
1981	62	60	2	3
1982	11	9	2	2
1983	101	97	4	1
1984	133	132	1	0
1985	167	115	52	2
1986	57	57	0	3

* Through July 30, 1986.

Source: City of Healdsburg Public Works Department, 1986.

The relative composition of the housing stock has remained quite stable over the 1970 to 1987 period. In 1987, 77.9 percent of the housing stock is composed of single-family units, 19.5 percent of multifamily units, and 2.5 percent of mobilehomes. Multifamily units include 391 units in structures with two to four units, and 304 units in structures with five or more units.

Housing Tenure

The 1960 Census showed that 57.1 percent of the occupied units in Healdsburg were owner-occupied. This figure dropped to 52.7 percent when the 1975 Special Census was conducted. The 1980 Census showed the figure rising to 60.3 percent.

Vacancy Rates

The 1980 Census classified 2,980 of the city's 2,985 housing units as year round housing units. Presumably, the other five were held for seasonal use or migratory labor. Of the total year round units in 1980, 95 were shown as vacant: seven for sale only; 36 for rent; 24 held for occasional use; and 28 "other vacant."

The California Department of Finance in 1987 reported an overall vacancy rate of 3.06 percent for Healdsburg and a much higher rate (7.11 percent) for Sonoma County as a whole. The Department of Finance does not calculate vacancy rates separately for ownership and rental units. An overall vacancy rate of 4-5 percent (2-3 percent for ownership units and 5-6 percent for rental units) is generally considered a healthy vacancy rate. A survey of Healdsburg's two mobilehome parks revealed no vacant spaces.

Population Per Household and Overcrowding

As part of a national trend, household size in Healdsburg has been steadily declining. In 1970 the average number of persons per household was 2.7. This dropped in the 1975 Special Census to 2.6 and to 2.49 in the 1980 Census. The California Department of Finance estimates the rate at 2.44 persons per household in 1985.

TABLE II-4

OVERCROWDING, 1980 Healdsburg and Sonoma County

	<u>Total Units</u>	<u>Owner Occupied</u>	<u>Renter Occupied</u>
<u>Sonoma County</u>			
Total	110,642	68,896	41,746
Overcrowded	3,832	1,606	2,226
Percent Overcrowded	3.5%	2.3%	5.3%
<u>Healdsburg</u>			
Total	2,885	1,739	1,146
Overcrowded	113	42	71
Percent Overcrowded	3.9%	2.4%	6.2%

Source: U.S. Census Bureau

The U.S. Bureau of the Census defines overcrowding as more than one person per room in a housing unit. In 1980, there were 42 overcrowded owner-occupied units and 71 overcrowded renter-occupied units. This means that approximately 2.4 percent of Healdsburg's owner-occupied units were overcrowded, while six percent of Healdsburg's renter-occupied units were overcrowded. Healdsburg's 1980 overall crowding rate of 3.9 was higher than Sonoma County's but significantly lower than the 7.4 percent state rate.

Housing Age and Conditions

Approximately 44 percent of the Healdsburg 1987 housing stock was built before 1960, approximately 17 percent before 1940. Much of the housing in the downtown area is 60 years old and older. Most of the older homes in the downtown area are well maintained and some have been completely restored, yet this area still contains the highest concentration of housing needing rehabilitation of any area in the city.

As part of the 1979 Downtown Revitalization and Preservation Study, the city conducted an exterior structural survey of every residential structure in the study area. Surveyors recorded the condition of roofs, stairways, foundations, and noted if there was any wood rot or unsafe structural features. The survey did not include any plumbing or electrical inspection, nor was there any interior survey of kitchen or bathroom facilities.

Survey results indicated that housing in the study area was in generally good condition. About 36 percent of the structures were in need of some maintenance work or minor repairs, four percent were in need of major rehabilitation work, and less than 0.5 percent (three structures) needed to be demolished. Most of the buildings needing maintenance and rehabilitation were single-family detached homes.

The 1980 Census shows that only 28 units, or 0.9 percent of the total dwelling units in the city, are without complete kitchen facilities. And 15 units, or 0.5 percent of the total dwelling units, lack complete plumbing for exclusive use.

Based on census data and visual surveys, the 1981 Healdsburg Housing Element concluded that approximately 15 percent (448) of the city's 2,985 housing units needed rehabilitation. This figure included both vacant and occupied units. Most of these units are single-family homes concentrated in the downtown area and older sections of the city. The Housing Element concluded that not more than ten of these units needed to be replaced. Given ongoing public and private rehabilitation efforts and assuming some further deterioration, the 1981 figures are still a reasonably accurate statement of housing conditions in Healdsburg.

Housing Costs and Overpayment

Providing adequate housing for a variety of income groups has become an increasingly difficult goal to achieve. Housing costs have escalated significantly during the past 15 years because of higher construction costs, speculation, inflation, higher mortgage rates, and the decreasing supply of vacant developable land. From 1976-1980, the Real Estate Research Council of Northern California reported the average sales price of a new single-family residence in the San Francisco Bay Area increased 123.6 percent from \$53,846 to \$120,411. Because of increasing costs, low- and moderate-income families are being priced out of the ownership housing market and shifted into the rental market.

In 1980, when the U.S. Census was conducted, the median house value in Healdsburg was \$78,700 and homeowners were paying median monthly housing costs of \$339 (including mortgage, taxes, insurance and utilities). By comparison, the median house price in Sonoma County was \$88,400 and \$84,700 statewide.

According to the Sonoma County Multiple Listing Service the average sales price for a home in the Healdsburg area in 1984 was approximately \$94,000. The Consultant Team surveyed asking prices for Healdsburg area homes published in the classified and realtor ads of the Healdsburg Tribune during June 1985. Table II-5 summarizes the results of the survey. Listings for lots with more than one house and for houses on large lots (i.e., greater than one acre) were not included in the survey.

TABLE II-5

MEDIAN HOUSE PRICES*
Healdsburg
June 1985

<u>One Bedroom</u>	<u>Two Bedroom</u>	<u>Three Bedroom</u>	<u>Four Bedroom</u>
\$67,000	\$86,000	\$127,500	\$160,000

* These are asking prices, not sales prices.

Source: Consultant Team survey of classified ads in the Healdsburg Tribune, June 1985.

According to the 1980 Census, Healdsburg renters were paying a median rent of \$250 per month. At the same time, renters were paying \$256 per month in Sonoma County and \$253 per month statewide. A city survey conducted in 1981 for the Healdsburg Housing Element revealed the median rents for one, two, and three bedroom units were \$245, \$300 and \$450 respectively.

The June 1985 Consulting Team survey of classified ads in the Healdsburg Tribune revealed the significant increases in rental rates since 1981, as shown in Table II-6.

TABLE II-6

MEDIAN RENTAL PRICES*
Healdsburg
June 1985

<u>Studio</u>	<u>One Bedroom</u>	<u>Two Bedroom</u>	<u>Three Bedroom</u>
\$325	\$375	\$550	\$700

* Includes both single-family homes and apartments.

Source: Consultant Team Survey of classified ads in the Healdsburg Tribune, June 1985.

The Santa Rosa Housing Authority and Sonoma County Community Development Commission conducted rent surveys in the County in 1982 and 1984 (see Table II-7). According to the survey, median rents for various sizes of single-family units increased an average of 8.4 percent between 1982 and 1984, while median rents for multifamily units increased an average of 36.6 percent.

TABLE II-7

MEDIAN RENTS
Sonoma County
1982 and 1984

<u>Unit Size</u>	<u>Single-Family</u>			<u>Multi-Family</u>		
	<u>1982</u>	<u>1984</u>	<u>Percent Increase</u>	<u>1982</u>	<u>1984</u>	<u>Percent Increase</u>
Studio	--	--	--	\$280	\$400	42.8%
1 Bedroom	--	\$375	--	\$290	\$420	44.8%
2 Bedroom	\$400	\$425	6.3%	\$350	\$440	25.7%
3 Bedroom	\$450	\$510	13.3%	\$425	\$565	32.9%
4 Bedroom	\$458	\$578	5.5%	--	--	--

Source: Santa Rosa Housing Authority and Sonoma County Community Development Commission; Draft Sonoma County Housing Element, February 1985.

According to the 1980 Census, 46 percent of all renter households were paying more than 25 percent of their income for housing, while only 23 percent of all homeowner households were paying more than 25 percent.

According to the 1980 Census, the 1979 median household income in Sonoma County was \$14,150 (for purposes of analyzing overpayment, the County's median is used instead of Healdsburg's). This placed the upper limit of low income (80 percent or less of median income) at \$11,320. According to the Census, 162 lower-income homeowner households in the city were spending more than 25 percent of their income for housing and 361 lower-income renter households were spending more than 25 percent of their income for housing.

HOUSING NEEDS

Under the state housing element requirement, housing needs are defined in three categories: existing needs, projected needs over a five year period, and special needs. Previous sections of this chapter identified existing needs. In summary, they include the following:

- Overcrowding (1980)
 - 42 overcrowded, owner-occupied units (2.4 percent)
 - 71 overcrowded, renter-occupied units (6.0 percent)
- Substandard Units (1985)
 - 438 units needing rehabilitation (14.7 percent)
 - 10 units beyond repair and needing to be replaced (0.3 percent)

- Overpayment (1980)
162 lower-income homeowner housing paying more than 25 percent for housing
361 lower-income renter housing paying more than 25 percent for housing

Projected housing needs are the total additional housing units required to adequately house a jurisdiction's projected population in five years in units that are affordable, in standard condition, and not overcrowded. Projected housing needs therefore include the needs of the existing population as well as the needs of additional households expected to reside in the jurisdiction five years hence.

Special housing needs focus on the needs of subgroups within the population with special housing requirements, such as the elderly, the handicapped, large families, farmworkers, households headed by single females, and families and persons in need of emergency shelter.

Healdsburg's Share of Projected Regional Needs

To assist local governments in the San Francisco Bay Area in making projections of future housing needs, the Association of Bay Area Governments in 1983 prepared a regional Housing Needs Determination covering the period 1980 to 1990. The purpose of the plan is to examine housing needs across jurisdictional boundaries and allocate to each local government responsibility for planning to meet those needs. For Healdsburg, the needs plan identified an existing need in 1980 of 58 units and total projected need of 1,455 new units (which includes existing need) for the 1980-1990 period. The existing need of 58 units includes the additional units in 1980 that would have produced an "optimal vacancy rate."

The ABAG plan further breaks down the projected need by income groups as shown in Table II-8.

TABLE II-8
PROJECTED HOUSING NEED BY
INCOME CATEGORY
Healdsburg
1980-1990

Very low	393 (27%)
Low	262 (18%)
Moderate	320 (22%)
Above Moderate	<u>480</u> (33%)
TOTAL:	1,455

Source: ABAG Housing Needs Determination, 1983.

These ABAG projections are based on their 1983 projection of 4,210 households (and 10,400 total population) in Healdsburg by the year 1990. ABAG's 1985 revised projections show 3,960 households (and 9,900 total population) in Healdsburg in 1990.

In its revised draft 1986 housing element, Sonoma County has also made housing need projections for Healdsburg for the 1980-1990 period. This set of projections shows a total projected need for new units of 1,005 between 1980 and 1990. The Sonoma County housing element also projects an additional need for 2,280 new units for the 1990-2005 period, for a total 1980-2005 projected need of 3,285 new units.

According to City building permit records, the City issued building permits for 539 units between 1980 and June 30, 1986. This means the projected 1986-1990 need for Healdsburg, based on ABAG's 1983 projections, is for an additional 916 units. Based on Sonoma County's more reasonable projections, the projected net 1986-1990 need is for 466 new units, or 545 units based on income categories.

Table II-9 shows the balance of need for the 1986-1990 period based on both the ABAG and Sonoma County need figures.

TABLE II-9
BALANCE OF NEED
1986-1990¹

	<u>Units Constructed</u> ²	<u>ABAG Need</u> ³	<u>ABAG Balance of Need</u>	<u>Sonoma Co. Need</u> ⁴	<u>Sonoma Co. Balance of Need</u>
Very Low	40	393	353	271	231
Other Low	21	262	241	181	160
Moderate	300	320	20	221	0
Above Moderate	<u>178</u>	<u>480</u>	<u>302</u>	<u>332</u>	<u>154</u>
Total	539	1,455	916	1,005	545

¹ For period July 1, 1986 to July 1, 1990.

² Building permits issued from January 1, 1980 to June 30, 1986. The distribution was estimated by City of Healdsburg and Consultant Team based on HUD's estimate of \$30,500 as the 1986 median family income for Sonoma County and a maximum expenditure of 30 percent of family income for housing, yielding the following monthly expenditure levels: Very Low Income - \$381.25; Low Income - \$610.00; and Moderate Income - \$915.00.

³ ABAG Housing Need Determination, 1983.

⁴ Revised Draft Sonoma County Housing Element, 1986.

Special Needs

Beyond the general housing needs documented in previous sections of this chapter, state law requires that the housing element include an assessment of the housing needs of special groups within the community, including those of the handicapped, elderly, large families, farmworkers, families with female heads of households, and families and persons in need of emergency shelter.

Handicapped Persons

The number of handicapped persons has important planning implications for providing certain social services, in the removal of barriers to facilities throughout the city, and in developing housing which has specialized access arrangements for the resident. Healdsburg has a slightly smaller proportion of persons between the ages of 16 - 64 with a work disability (10.1%) than does Sonoma County as a whole (10.7%). The city also has a smaller proportion of residents with a work disability remaining in the labor force than residents countywide (35.3% for Healdsburg compared to 42.2% in Sonoma County).

It can be assumed that the types of disabilities of persons in Healdsburg is proportionately similar to that of Sonoma County. According to the State Department of Rehabilitation, the largest proportion of handicapped persons in the county has a skeletal or muscular disability (42.8%).

TABLE II-10
WORK DISABILITY, 1980
Healdsburg and Sonoma County

	<u>Healdsburg</u>	<u>Sonoma County</u>
With Work Disability	445	16,729
In Labor Force	157 (35.3%)	7,062 (42.2%)
Not in Labor Force		
Prevented from Working	216 (48.5%)	7,648 (45.7%)
Not Prevented	72 (16.2%)	2,019 (12.1%)
No Work Disability	3,974	172,515

Source: U.S. Bureau of the Census

TABLE II-11
TYPES OF DISABILITIES*
Sonoma County

	<u>Number</u>	<u>Percentage</u>
Skeletal/Muscular	10,100	42.8%
Cardiovascular	3,710	15.7%
Neurological	1,470	6.2%
Respiratory	1,430	6.1%
Mental Retardation	1,110	4.7%
Alcohol/Drug Addiction	1,190	5.0%
Emotional Problems	1,270	5.4%
Digestive	590	2.5%
Blind	250	1.1%
Deaf	130	0.5%
Other Sensory	560	2.4%
Other Conditions	1,810	7.7%

* For Ages 16 to 64.

Source: California State Department of Rehabilitation, July 1981

Elderly

In 1980, the city's 2,911 households included 925 (31.7 percent) with at least one resident 65 years or older; 386 of these were single-person households. The elderly, particularly those with fixed and limited incomes, have special needs which the private housing market has difficulty meeting.

Large Families

While published 1980 Census data provides little data on family size or household size, it does summarize the number of persons per housing unit by size of unit. Table II-12 shows that in 1980 only 8.3% of Healdsburg's housing units were occupied by households with five or more persons. Given the data available, there is no simple means to determine how well large families are matched with large units. Nonetheless, large families with low incomes have difficulty locating larger units they can afford. The supply of larger units, both single family homes and apartments, is very limited and tends to be expensive.

TABLE II-12
PERSONS IN UNITS, 1980
Healdsburg

<u>Number of Persons</u>	<u>Occupied Housing Units</u>	<u>Percent</u>
1 Person	713	24.7%
2 Persons	1,078	37.4%
3 Persons	466	16.1%
4 Persons	389	13.5%
5 Persons	143	5.0%
6 or More Persons	<u>96</u>	<u>3.3%</u>
	2,885	100.0%
Mean Persons Per Unit	2.49	

Source: U.S. Bureau of the Census

Farmworkers

Reliable data on the size of the farmworker population and its housing needs are difficult to obtain due to the seasonal and migratory nature of farm work and the participation of undocumented workers in the agricultural labor force. However, the California Human Development Commission (CHDC) estimated that in Sonoma County in 1984 there were 4,200 documented, year-round farmworker households, containing about 21,000 persons, living in about 3,000 farmworker housing units. CHDC also estimates that for every documented farmworker household there are two to three undocumented migratory households, or as many as 8,400 additional households during peak periods of agricultural activity.

In 1985 the Burbank Housing Development Corporation completed a study for the City of Healdsburg of farmworker housing needs in northern Sonoma County. The study included surveys in 1984 of both farmworkers and growers in the Windsor, Healdsburg, and Geyserville areas, where the heaviest concentration of farmworkers lives and works. The following excerpts from the study summarize the study's conclusions:

The CHDC farmworker survey provided insights into the relationship between the low income of farmworkers and the relatively high rents they pay. Over half of the respondents (53 percent) make \$4,000 to \$8,000 per year and only 5 percent make over \$16,000. Almost half of the households making \$4,000 to \$8,000 per year pay \$300 to \$500 per month for rent and ten households making under \$4,000 pay that same amount. Thirteen households of over five members live in one bedroom units and 31 live two bedroom units. By any standards, this would be considered overcrowding. Fifteen families of seven or more members live in two bedroom units. Slightly less than half of the respondents to the survey categorize their housing as inadequate.

Observed housing conditions in the study area included barns, shacks and garages converted into living space for farmworkers. Overcrowding with four or more to a room is common. At times, wells are contaminated and septic systems leak. The health center lists parasitic illnesses as one of the major health problems of these people. Other housing problems tolerated by many farmworkers include inadequate heat, leaking roofs, single wall construction with no insulation, dangerous electrical wires and appliances, vermin and broken windows. Some have no place to bathe.

Barriers to adequate housing for farmworkers include economic poverty, large family size, social and language difficulties as well as illegal status. Many of the growers have relatively small operations and cannot afford to develop and maintain quality housing for all of their workers. And yet, it is advantageous for them to have a reliable work force they can count on living nearby. Typical grower comments in the survey included, "provision of housing makes it easier to get help," [housing] "provides a stable work force," and [housing guarantees] "a supply of good labor."

Half of the 26 respondents to the Grower's Survey provide housing but not all desire to do so. To the question, "Would you as a grower prefer to provide housing?" 60 percent answered "no." Ninety-two percent of the respondent growers who provide housing do so for their permanent workers, yet in staff field visits a significant number of units for migrant single men were also witnessed. Although most growers don't actually want to provide the housing themselves, 88 percent would like to see housing developed in their area because it provides them with a steady and reliable work force.

Female Heads of Households

The 1980 Census reported that there were 207 households with children under 18 years of age headed by single females. (See Table III-9 in Chapter III.) Many families headed by single females have lower incomes and, therefore, have difficulty finding affordable housing.

The Homeless and Other Persons with Emergency Shelter Needs

The housing needs of homeless persons are more difficult to measure and assess than those of any other population subgroup. Since these individuals have no permanent addresses they are not likely to be counted in the Census, and since they are unlikely to have stable employment, the market provides few housing opportunities. Available data on the homeless population is limited to an August 1983 report by the Emergency Shelter Task Force of the Sonoma County Council for Community Services. This report compiled data on requests for emergency shelter received by local social service agencies during January 1983. The report indicates that 29 of 32 agencies surveyed received requests for emergency shelter during the survey month. The frequency of requests was as follows:

"Several" to 12 per day	-	4 agencies
"Several times a week"	-	9 agencies
"Several times a month"	-	5 agencies
"Once in a great while"	-	11 agencies

The total number of persons requesting assistance during the survey month was 534, or an average of about 17 per day. Table II-13 indicates that persons with the most serious unmet needs were transients, the mentally ill, single women, single men, and the handicapped.

While the issue of homelessness has in recent years become a major issue nationally, the problem of homelessness in Healdsburg appears relatively limited. According to the Healdsburg Police Department, the number of persons it encounters needing temporary shelter has not increased significantly in recent years.

The Healdsburg Police Department administers discretionary funds provided by the Salvation Army to provide emergency food, clothing and shelter for those displaced by fire or natural disaster. Only occasionally are these funds used for emergency shelter for the homeless.

Saint Paul's Episcopal Church operates an overnight shelter at the church on Matheson Street. The four-bed shelter facility, staffed by volunteers, provides overnight lodging for both single persons and families. Many of those housed are transients, while others are frequent repeat users of the shelter.

TABLE II-13

PERSONS REQUESTING EMERGENCY SHELTER
January 1983

<u>Persons with Unmet Housing Needs</u>	<u>Percent of Agencies Reporting Need</u>
Single Men	42.9
Single Women	46.4
Single Women (pregnant)	17.8
All Families:	25.0
Families	32.1
Single parents with children	21.4
Families with teenagers	21.4
Large families	25.0
Families without children	25.0
Teenagers	25.0
Elderly	21.4
Students	21.4
Handicapped	42.9
Mentally Ill	46.4
Alcoholics	25.0
Ex-Offenders	21.4
Transients	60.7

Source: Sonoma County Council for Community Services, August 1983.

AVAILABILITY OF LAND AND SERVICES FOR RESIDENTIAL DEVELOPMENT

Residential Zoning

The Healdsburg Zoning Ordinance includes four single-family residential districts with minimum lot sizes ranging from 5,000 to 40,000 square feet: R-1-40,000, R-1-20,000, R-1-10,000 and R-1-5,000. The R-2-2,500 (Two-family Residential District) provides for two dwellings on a 5,000 square foot lot. R-M-2,500 (Multi-family Residential District) allows for two dwellings for the first 5,000 square feet of minimum lot area plus an additional unit for each 2,500 square feet of lot area over 5,000. The DRD (Downtown Residential District) has the same lot size and density standards as R-M-2,500.

Residential uses are also allowed in the O-R-M (Office and Multi-family Residential District), which has the same requirements as the R-M-2,500 District. The Zoning Ordinance's P-D District has also been used for housing developments with the applicable General Plan land use category controlling residential density.

The Zoning Ordinance allows mobilehomes on permanent foundations in the R-1 District and, because of the cumulative nature of the Zoning Ordinance, in the higher density residential zones. The ordinance also allows for the establishment of secondary residential units in the R-1 District.

Under the policies of the 1981 Housing Element, a residential density bonus of at least 25 percent over the General Plan density limit is allowed for housing projects that include at least 25 percent of the units for low- and moderate-income housing and meet other specified criteria.

Vacant Land

In late 1984, the City of Healdsburg conducted a comprehensive land use inventory. Based on this information the Consultant Team calculated the amount of land within each category and further calculated the amount of vacant land, essentially vacant land and land used for agricultural purposes within each zoning district. Table II-14 summarizes vacant land within the city's residential zones and estimates their dwelling unit potential. The table shows that vacant residential zoned land within the City could accommodate 513 units. However, when lot size configurations, slope limitations, and other development constraints are taken into account, the holding capacity of these zones probably is in the range of 300-350 units. This amounts to approximately two to three years of residential building permits at current (1985 and 1986) rates.

TABLE II-14
VACANT RESIDENTIALLY ZONED LAND
AND DEVELOPMENT POTENTIAL
City of Healdsburg
January 1985

	<u>Acres Vacant</u>	<u>Dwelling Unit Potential</u> ¹
R-1-40,000	17.5	17
R-1-20,000	35.4	70
R-1-10,000	7.3	30
R-1-10,000 (H)	11.3	45 ²
R-1-10,000 - PD	15.0	75
R-1-6,000 - PD	0	0
R-1-5,000	21.4	171
R-2-2,500	1.3	21 ³
R-M-2,500	0	0
DRD	7.6	61 ³
ORM	2.9	23 ³
		<hr/> 513 DUs

Notes:

¹ Estimate based on total area within each zoning district without regard to lot configurations. Includes vacant, essential vacant and parcels currently used for agriculture.

² Does not consider density reductions due to slope/density requirements.

³ Based on 16 DU/acre maximum set by the General Plan.

Source: Consultant Team Estimate

A separate assessment by the Consultant Team concludes that under existing zoning and General Plan designations the total Planning Area could accommodate approximately 4,300 new units, including recycling of some areas to higher densities.

Surplus Land

There is presently no known surplus land in Healdsburg owned by any state agency. The City of Healdsburg has surplus land at the old Corporation Yard which it part of essentially donated for the Fitch Mountain Terrace Senior Citizens Housing Project.

Services for Residential Development

The adequacy of services (e.g., streets, water, sewage collection and treatment, and drainage) are discussed in detail in Chapters V and VI. Generally, there is adequate overall capacity in these systems to serve all potential residential development within the city limits and a portion of the area presently designated for residential use outside the city limits. There remain, however, localized limitations in these systems, some of which are being remedied by ongoing improvement efforts, and some of which would have to be addressed at the time of development.

GOVERNMENTAL CONSTRAINTS

While local governments have little influence on such market factors as interest rates, their policies and regulations do constrain the free operation of the housing market. For the most part, local regulations play a legitimate role in protecting the public's health, safety and welfare. In some cases, however, local regulations may restrict the operation of the housing market unnecessarily. Examination of the local regulatory structure can highlight those areas of "excessive" regulations where steps can be taken to remove or minimize obstacles to residential development,

Local Land Use Regulations

Control over land use is exercised through the Healdsburg General Plan adopted in 1978, the zoning ordinance, and other implementing ordinances. A review of the zoning standards for residential development shows that these standards are generally consistent with those of other northern California communities. These local regulations require construction and dedication of streets, curbs, gutters, and sidewalks, generally consistent with the standards of most northern California communities. Development fees are also charged for off-site improvement as discussed later in this chapter. The City has also created a redevelopment agency that controls development (through a redevelopment plan) in approximately 60 percent of the incorporated city. These documents and ordinances are described in Chapter I.

Building and Housing Codes

Building and housing codes establish minimum standards and specifications for structural soundness, safety, and occupancy. The State Housing Law requires cities and counties to adopt minimum housing standards based on model industry codes. In addition to meeting the requirements of State

Housing Law, local governments enforce other state requirements, including requirements for fire safety, noise insulation, soils reports, earthquake protection, energy conservation, and access for the physically handicapped.

As of September 1986, the City was implementing all the most recent editions of the uniform codes and other state regulations as required by law, including the following editions of the uniform codes: 1982 Uniform Building Code; 1982 Uniform Mechanical Code; 1982 Uniform Plumbing Code; 1982 Uniform Fire Code; and 1984 National Electrical Code. The only provision of the Uniform Building Code not being fully implemented concerns grading (Chapter 70). In adopting the uniform codes the City has not made any modifications which would work a hardship on housing development. The City is also implementing revised energy conservation requirements for new residential structures (effective July 1983) and revised accessibility regulations for the handicapped in multifamily structures of five or more units (effective March 1985).

The California Building Industry Association (CBIA) has estimated that revised energy conservation requirements will add \$1,500-2,000 to production costs per unit, while revised accessibility regulations will add \$500-600. Increased costs for energy conservation may increase initial sales prices and rents, but should reduce the utilities component of housing operating costs over the long term. Accessibility regulations will also increase initial sales prices and rents, but will address the housing needs of elderly and handicapped persons.

Local Permit Processing Fees

State law requires that local permit processing fees charged by local governments must not exceed the estimated actual cost of processing the permits. Table II-15 lists the fees currently (September 1986) charged by the City for processing various land use permits.

TABLE II-15

PLANNING AND ENGINEERING FEES
City of Healdsburg
September 1986

PLANNING

Use Permit	\$125	Includes
Variance	\$100	Initial Study
Rezone	\$250	fee
P-D or RMP (Prelim. Plan)	\$250 + \$25/lot	
Minor Subdivision (creating 4 or less parcels and involving no rezoning, variances, use permits or EIRs)	\$ 50 per parcel	
Major Subdivision (creating 5 or more units or less than 5 units but requiring any of the following: rezone, variance, use permit & EIR. Such fee includes the rezone, variance, and use permit & EIR if processed concurrently)	\$500 plus 120% of consultant's fee	
General Plan Amendment	\$500 plus 120% of consultant's fee	
Lot Line Adjustment	\$ 50	

ENGINEERING - Collected at the time of application.

Lot Split (Minor Subdivision)	\$ 60 per lot
Major Subdivision	\$ 30 per lot

MAP CHECKING FEES - Collected upon submittal of Parcel Map, Final Map, or Improvement Plans, or Precise Plan Elements

Lot Split	\$ 90 per lot
Major Subdivision	\$ 45 per lot
P-D or RMP (Precise Plan)	\$250 + \$25/lot (covers Design Review Commission review)

FINAL ENGINEERING AND INSPECTION FEES (E & I) - Collected before Final Map and Subdivision Agreement signed

3% of improvements costs minus previous engineering fees.

Source: City of Healdsburg Public Works Department, September 1986

Permit Processing

The City of Healdsburg has maintained a policy of processing permits as expeditiously as possible, given the requirements for environmental review, public notice and the meeting schedules of the Planning Commission, Design Review Commission and City Council. Ultimately, the maximum amount of time for processing residential development permits is set by state law (California Government Code Sections 65920 et seq.).

TABLE II-16
AVERAGE PERMIT PROCESSING TIME
City of Healdsburg
September 1986

	<u>Average Time Needed¹</u>
General Plan Amendments	6 weeks
Rezoning	12 weeks ²
Variance	2-1/2 weeks
Use Permit	2-1/2 weeks ²
P-S or RMP (Preliminary Plan)	12 weeks
P-D or RMP (Final Plan)	varies
Minor Subdivision (Tentative Map)	4 weeks
Major Subdivision (Tentative Map)	4 weeks
Minor Subdivision (Final Map)	variable
Major Subdivision (Final Map)	variable
Lot Line Adjustment	2-1/2 weeks
Building Permit	3 weeks
Design Review	1-1/2 weeks

¹ Assumes a negative declaration. An additional 4 to 6 months, depending on the project's size and nature, would be required for preparing and processing an environmental impact report.

² Includes time required for two readings of the ordinance plus a 30-day delay in the ordinance becoming effective.

Source: City of Healdsburg Public Works Department, September 1986.

Residential Development Fees

Since the passage of Proposition 13 in 1978, local governments have come to rely increasingly on annexation and impact fees to finance local infrastructure. Table II-17 lists the annexation fees currently being charged by the City of Healdsburg. In establishing these fees in 1983, the City Council determined that "the proponent of an annexation or the property owners benefiting from an annexation...[should] make a contribution to the City equal to the prorata contribution toward major public facilities made by the utility rate payers and tax payers of the city (Resolution No. 106-83).

TABLE II-17

ANNEXATION FEES
City of Healdsburg
1986

1. Electric Enterprise Facilities	\$689/acre
2. Water Enterprise Facilities	\$388/acre
3. Sewer Enterprise Facilities	\$470/acre
4. Public Safety Facilities (police and fire stations)	\$ 70/acre
5. Recreation Building Facilities	\$ 50/acre
6. Park Facilities	\$ 67/acre
7. Street Facilities	\$808/acre
8. Drainage Facilities	\$917/acre

Source: Healdsburg City Council Resolution 106-83

At the time of development the city also assesses a set of development impact fees, shown in Table II-18 (City Code Chapter 17A and Resolutions 104-83 and 105-83). For a 1,500 square foot single-family dwelling, the City development impact fees run about \$4,000.

TABLE II-18

RESIDENTIAL DEVELOPMENT AND CONNECTION FEES
City of Healdsburg
June 1987

Development Fees Per Dwelling Unit:

Water	\$1500	Drainage	16¢/sq.ft. of hard surface
Sewer	\$ 900		
Electrical*	\$ 275	Parks	\$900 (Effective July 16)
Streets	\$ 500		

- * When upgrading of distribution system or additional transformers are required the electrical development fee shall be the actual cost of such upgrading plus \$275 per unit.

Connection Fees:

When performed by City forces

*1" water service	\$1190
*2" water service	\$1240
Meters 5/8"x3/4"	\$ 80
1"	\$ 100
1-1/2"	\$ 220
2"	\$ 320
*4" sewer lateral	\$1070
Electrical Service	\$ 400
Connection (for either underground or overhead)	

Vintage Hills Subdivision \$ 520

- * Under special circumstances, (i.e., concrete streets, high traffic locations fee will be greater.)

Commercial and Industrial fees shall be individually determined, based upon projected use or demand of the development as determined by the city.

Source: City of Healdsburg

NON-GOVERNMENTAL CONSTRAINTS

Non-governmental constraints are those factors limiting the availability of affordable housing over which local government has little or no control. State law requires that the housing element contain a general assessment of these constraints as a basis for possible actions by the local government to offset the effects of these constraints. The two principal types of non-governmental constraints are new housing cost components and the availability and cost of permanent financing.

Table II-19 profiles development costs for a new three bedroom, 1,500 square foot home on a quarter-acre lot typical of the homes for which the City has issued building permits during the last two years. Houses on smaller lots would naturally cost less, likely in the \$140,000 range.

TABLE II-19
HOUSING COST COMPONENTS, 1985
Typical Three Bedroom Two Bath Home*
Healdsburg

Land (Improved Lot)	\$40,000
Sewer/Water Installation and Connection Fees	4,000
Building Permit Fees	1,200
Construction Costs	76,000
Construction Financing, Developer Profit and Marketing	<u>40,000</u>
Total:	<u>\$161,200</u>

* 1500 sq.ft. home on a 1/4 acre lot

Source: City of Healdsburg Public Works Department

The discussion of development costs, and later, financing costs, is limited to the typical single-family home, because, despite changes in demographics and consumer preferences in recent years, single-family home ownership is still a major objective of most families in California. Consequently, the cost of a new single-family home serves as the benchmark in decisions by consumers about what they are willing to pay for different kinds of housing.

A 1984 survey by the Sonoma County Planning Department indicated that residential land prices in the County ranged from \$50-75,000 per acre for unimproved urban sites zoned for residential development at five units per acre, \$90-120,000 for unimproved urban land zoned for development at 15 units per acre, and \$10-50,000 per acre for rural single-family home sites--depending on zoning, location and amenities. According to the 1985 Draft Sonoma County Housing Element, an improved 6,000 square foot lot appreciated in value from about \$6,000 in 1972 to \$30,000 in 1984.

Interest rates for permanent financing have been the most erratic and problematic component of total housing costs for homeowners and would-be homeowners in recent years. Interest rates have fluctuated over the last ten years within a range from eight (8) percent to over 18 percent. The interest rate on the conventional, 30-year, fixed rate mortgage presently runs about 13 to 14 percent with loan origination fees of around 2-1/2 percent plus \$250.

Because so many families have been unable to qualify for home loans at the higher interest rates, sellers, buyers and financial institutions have spawned a wide variety of new financing techniques, including mortgages with balloon payments, graduated payments, appreciating equity and adjustable interest rates. Presently, the rates for adjustable interest mortgages run 10 to 12-1/2 percent with a three to six percent cap on rate adjustments and a loan fee of one to three percent plus \$200.

The effects of interest rates on the level of income required to qualify for a home loan are illustrated in Table II-20. For a house priced at about \$87,000, the monthly payments range from \$800 with a 10 percent loan to \$1,170 with a 16 percent loan (assuming a loan to value ratio of 0.9). In 1984, the monthly payment at 10 percent would require an annual income of \$32,000, 113 percent of the County median income; with an increase in interest rates to 12 percent, the home would no longer be considered "affordable," since an income higher than 120 percent of median income would be necessary to qualify for a home loan. For the \$87,000 home, each additional two percentage points on the mortgage interest rate necessitates an additional \$5,000 of household income in order to qualify for the loan. Short-term fluctuations in interest rates obviously have a substantial impact on the number of households that can afford to purchase new or existing housing.

ENERGY CONSERVATION

The City of Healdsburg has implemented the provisions of Title 24 of the State Building Code that require new residential buildings to meet a comprehensive set of standards for energy conservation. Builders of these units may achieve compliance either by calculating energy performance in a prescribed manner or by selecting from alternative component packages which prescribe a fixed method of compliance. All proposed residential units are checked by the City Building Department to ensure their design and construction complies with Title 24 energy standards. Additions and alterations must also meet Title 24 energy standards if they increase the heated or cooled floor space of a building.

Energy conservation retrofit programs operated by PGandE for existing residential units have been phased out.

TABLE II-20

THE IMPACT OF MORTGAGE INTEREST RATES ON
MONTHLY HOUSING COSTS AND HOUSEHOLD INCOME
REQUIRED TO QUALIFY FOR A HOME MORTGAGE

	Detached Single-Family House \$120,300		Detached Single Family House \$87,005		Condominium in Multi-Unit Structure \$65,835	
	<u>Monthly¹ Payment</u>	<u>Income² Required</u>	<u>Monthly Payment</u>	<u>Income Required</u>	<u>Monthly Payment</u>	<u>Income Required</u>
Interest Rate						
10%	\$1,100	\$44,000	\$ 800	\$32,000	\$600	\$24,000
12%	\$1,265	\$50,600	\$ 920	\$36,800	\$690	\$27,600
14%	\$1,430	\$57,200	\$1,045	\$41,800	\$780	\$31,200
16%	\$1,605	\$64,200	\$1,170	\$46,800	\$875	\$35,000
18%	\$1,780	\$71,200	\$1,295	\$51,800	\$975	\$39,000

¹ Assumes 10 percent down payment; includes property tax and mortgage/hazard insurance impounds of \$149 for \$120,300 unit, \$115 for \$87,005 unit and \$80 for \$65,835 unit.

² Income required for monthly payments to equal 30% of gross household income.

Source: Draft Sonoma County Housing Element, February 1985

CURRENT AND PAST HOUSING PROGRAMS IN HEALDSBURG

Since adopting the 1981 Housing Element the City of Healdsburg has actively promoted the production of affordable housing.

One of the primary sources of funding for City efforts has been the HUD Community Development Block Grant Program. The City of Healdsburg applies annually to the County for a portion of the Block Grant funds allocated to Sonoma County. In 1981-82 Healdsburg received \$500,000 for rehabilitation loans for housing in the downtown area. Approximately 60 owner-occupied units, primarily owned by seniors on fixed incomes, were assisted with this money.

In 1982-83, Healdsburg received \$179,073 for site improvements for the Fitch Mountain Terrace senior housing project. This is a 40 unit project sponsored by Fitch Mountain Terrace, Incorporated, a non-profit organization, being developed on the site of the City's old corporation yard.

In 1983-84, the City received \$100,000, initially intended for rental rehabilitation. Because of the lack of interest shown by apartment developers due to rent control provisions, the funds have been opened up to owner occupants. In 1984-85, the City received no allocation.

In addition to City Block Grant Funds, County Block Grant funds have been used directly for a rehabilitation loan for the Palm apartment complex on Matheson Avenue.

Fitch Mountain Terrace has been a major project for the City. In addition to devoting substantial Block Grant funds to the project, the City donated the project site and has spent \$30,000 to \$50,000 in direct support of the project. The project is also being assisted by a \$90,000 grant from the Redevelopment Agency, by a \$1.5 million Farmers Home low-interest loan, and by HCD's State Rental Assistance Program.

The City of Healdsburg has been involved in several attempts over the past several years to participate with other local agencies in using mortgage revenue bonds. In 1981-82, Healdsburg participated in the Northern California Home Mortgage Finance Authority, a joint-powers agency. The program was largely unsuccessful and no developers in Healdsburg used the program.

In 1983, Healdsburg entered into a cooperative agreement with the County of Sonoma. Again, this effort was largely unsuccessful, although the Russian River Pines development in Healdsburg did take advantage of the program.

In September 1984, Healdsburg joined with the County of Sonoma and the Cities of Petaluma, Rohnert Park and Santa Rosa to create the Sonoma County Home Finance Authority. In 1985, the Authority has a \$7 million bond entitlement primarily to assist first-time homebuyers. In Healdsburg, the developers of Rio Vista Estates and The Vineyards are participating in the program. Some of the surplus 1984 bond allocation may be used to assist homeowners to refinance existing high fixed-interest-rate or high variable rate loans or loans with large balloon payments.

The Redevelopment Agency is obligated by state law to use 20 percent of its tax increment funds to directly or indirectly support the improvement of housing. Under this mandate, the Redevelopment Agency has made a number of drainage and street improvements in the older section of town where there is a high concentration of renters and senior citizens and creation of an assessment district would be impractical.

In addition to direct local agency participation, several developers in Healdsburg have taken advantage of the California Housing Finance Agency mortgage revenue bond program. Both the Wildwood and Fitch Mountain Villas developments have used this funding source.

FINDINGS

- While housing conditions in Healdsburg are currently relatively good, weather and aging continue to take their toll, particularly on the older houses in the downtown area. An ongoing rehabilitation program will likely be necessary to ensure that the quality of the housing stock is maintained.
- Despite the relative improvements in housing affordability in the last two years (due largely to rising family incomes and lower interest rates), housing affordability will continue to be a major problem. Regulatory measures such as density bonus provisions and increasing residential density can contribute significantly to reducing housing and should be pursued. More direct participation by the City and Redevelopment Agency in providing financial incentives and direct support for housing will likely be limited. This suggests the need for the City to focus its efforts on the areas of greatest need such as housing for senior citizens.
- Despite the continuing affordability gap, demand for housing in Healdsburg, particularly for single-family detached houses, appears relatively strong and Healdsburg will likely continue to issue 100 or more building permits per year for the foreseeable future, given current economic conditions and interest rates.
- Although there are virtually no vacancies in the city's two mobilehome parks, there has been little developer interest in creating new mobilehome parks in Healdsburg. Interest in and demand for new mobilehome parks, however, is likely to increase for the next few years.
- The City-sponsored study of farmworker housing needs has pointed out the need for local governments in the area to be concerned about the substandard conditions in which many farmworkers must live. What role the City plays in meeting these needs is an important policy question that should be addressed in the General Plan.
- There is little vacant, developable, residentially zoned land remaining within the city limits. Within two to three years the supply of this land will be exhausted and continued growth be tied directly to the City's annexation program.

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APPENDIX II-A

AVAILABLE HOUSING PROGRAMS

Introduction

This appendix summarizes those federal, state and local programs currently available that the City of Healdsburg might pursue to implement its housing policies. The program summaries are based on program descriptions contained in HCD's January 1986 program summaries, CHFA's September 1986 Annual Report, HUD's 1985-86 summary of programs, FmHA's 1984 Brief History of FmHA and Sonoma County's draft 1985 Housing Element. An attempt has been made to provide current (October 1986) information on the status of each program. Inactive programs have not been included. Eligible sponsor/applicants for each federal and state program are also indicated: (1) city or county; (2) housing authority; (3) special district; (4) non-profit organization; (5) for-profit organization or developer; and (6) individual.

FEDERAL PROGRAMS

Department of Housing and Urban Development

Community Development Block Grants (Entitlement)

Provides grants on a formula basis to communities to carry out a wide range of community development activities directed toward neighborhood revitalization, economic development, and improved community facilities and services. Entitled communities develop their own programs and funding priorities and consult with local residents before making final decisions. All CDBG activities must either benefit low- and moderate-income persons; aid in the prevention or elimination of slums and blight; or address other community development needs that present a serious and immediate threat to the health and welfare of the community. No less than 51 percent of the funds must be used for activities which benefit low- and moderate-income persons.

Metropolitan cities (populations of 50,000 or more) and urban counties (populations of 200,000 and above) are entitled to receive annual grants. Grant amounts are determined by a statutory formula which uses several objective measures of community need, including poverty, population, housing overcrowding, age of housing, and growth lag. Sonoma County is classified as an urban county and, therefore, receives annual grants. The County in turn distributes a portion of its grant to the cities in the county, including Healdsburg, which apply annually for their share.

Status/Availability: Active program with funds appropriated annually.

Eligibility: 1

Home Improvement Loan Insurance (Title I)

HUD insures loans to finance major and minor improvements, alterations, and repairs of individual homes. The loans may be up to \$17,500 and may extend up to 15 years and 32 days. Loans on apartment buildings may be as high as \$8,750 per unit, but the total for the building may not exceed \$43,750, and the term may not exceed 15 years. Private lending institutions process these loans.

Status/Availability: Active Program

Eligibility: 6

Manufactured Homes (Title I)

HUD provides insurance on loans by private lenders to finance the purchase of manufactured homes, thereby providing alternative lower-cost housing. The maximum loan is \$45,500, whether single or multi-section home, and \$54,000 for a manufactured home and a suitable developed lot. The maximum loan term is 20 years and 32 days.

Status/Availability: Active Program

Eligibility: 6

Lower Income Rental Assistance (Section 8)

This program aids very-low income families in obtaining decent, safe, and sanitary housing in private accommodations. HUD makes up the difference between what these families can afford and the fair market rent for an adequate housing unit. Eligible tenants must pay the highest of either adjusted income, 10 percent of gross income, or the portion of welfare assistance designated to meet housing costs. This rental assistance may be used in existing housing, in new construction, and moderately or substantially rehabilitated units.

Status/Availability: Active program, but no new funding is available for new construction or substantial rehabilitation projects.

Eligibility: 2

Direct Loans for Elderly and Handicapped Housing (Section 202)

This program provides long-term direct loans to eligible private nonprofit sponsors to finance rental or cooperative housing facilities for occupancy by elderly or handicapped. The current interest rate is based on the average rate paid on federal obligations during the preceding fiscal year. Section 8 funds are made available for all Section 202 units. Households of one or more persons, the head of which is at least 62 years old or, if between 18 and 62, is qualified handicapped, are eligible to live in the structures.

Status/Availability: Active program; Congress has authorized funding for up to 12,000 units for the 1986 cycle.

Eligibility: 4

One-to-Four Family Home Mortgage Insurance (Section 203)

By insuring commercial lenders against loss, HUD encourages them to invest capital in the home mortgage market. HUD insures loans made by private financial institutions for up to 97 percent of the property value and for terms of up to 30 years. The loans may finance homes in both urban and rural areas (except farm homes). Less rigid construction criteria are permitted in rural areas. HUD/FHA-insured homeowners threatened with foreclosure due to circumstances beyond their control, such as job loss, death, or illness in the family, may apply for assignment of the mortgage to HUD, which, if it accepts assignment, takes over the mortgage payments for a period of time until homeowners can resume their financial obligations.

Status/Availability: Active Program

Eligibility: 6

Multifamily Rental Housing (Section 207)

HUD insures mortgage loans made by private lenders to finance the construction or rehabilitation of multifamily rental housing by private or public developers. Projects must contain at least five units and should be able to accommodate families at reasonable rents.

Status/Availability: Active Program

Eligibility: 2, 4, 5

Cooperative Housing (Section 213)

HUD insures mortgages made by private lenders on cooperative housing projects of five or more units to be occupied by members of nonprofit cooperative housing corporations. These loans may finance new construction, rehabilitation, acquisition, improvement or repair of a project already owned and resale of memberships; construction of projects composed of individual family dwellings to be bought by individual members with separate insured mortgages; and construction or rehabilitation of projects that the owners intend to sell to nonprofit cooperatives.

Status/Availability: Active Program

Eligibility: 4

Homeownership Assistance for Low- and Moderate-Income Families (Section 221 (D) (2))

HUD provides mortgage insurance to increase homeownership opportunities for low- and moderate-income families, especially those displaced by urban renewal. HUD insures lenders against loss on mortgage loans to finance the purchase, construction, or rehabilitation of low-cost, one-to-four family housing. Maximum insurable loans for an owner-occupant are \$31,000 for a single family home. For a larger family (5 or more persons), the limits are

\$36,000 or up to \$42,000 in high cost areas. Higher mortgage rates apply to two-to-four family housing.

Status/Availability: Active Program

Eligibility: 6

Multifamily Rental Housing for Low- and Moderate-Income Families (Section 221 (d) (3 & 4))

HUD offers mortgage insurance to finance rental or cooperative multifamily housing for moderate-income households. HUD insures mortgages made by private lenders to help finance construction or substantial rehabilitation of multifamily (5 or more units) rental or cooperative housing for moderate income or displaced families. Projects in both cases may consist of detached, semi-detached, row, walk-up, or elevator structures.

Status/Availability: Active Program

Eligibility: 1, 2, 4, 5

Existing Multifamily Rental Housing (Section 223 (f))

HUD insures mortgages to purchase or refinance existing multifamily projects originally financed with or without federal mortgage insurance. HUD may insure mortgages on existing multifamily projects under this program that do not require substantial rehabilitation. Projects must contain at least five units and must be at least three years old.

Status/Availability: Active Program

Eligibility: 4, 5

Mortgage Insurance for Housing for the Elderly (Section 231)

To assure a supply of rental housing suited to the needs of the elderly or handicapped, HUD insures mortgages made by private lending institutions to build or rehabilitate multifamily projects consisting of eight or more units.

Status/Availability: Active Program

Eligibility: 1, 2, 4, 5

Condominium Housing (Section 234)

HUD insures mortgages made by private lenders for the purchase of individual family units in multifamily housing projects. Sponsors may also obtain FHA-insured mortgages to finance the construction or rehabilitation of housing projects which they intend to sell as individual condominium units. Projects must contain at least four units and may be detached, semi-detached, row, walk-up, or elevator structures. Recent changes in legislation also permit insuring mortgages on individual units in existing condominiums.

Status/Availability: Active Program

Eligibility: 4, 5, 6

Housing Voucher Demonstration

This voucher program, similar to the Section 8 Existing Housing Program, provides very-low income families with a greater choice in the selection of a rental unit. The voucher permits families to rent units beyond the fair market rents. Monthly housing assistance payments will be based on the difference between a payment standard for the area and 30 percent of the family's monthly income. For families selected for assistance, preference will be given to those who are occupying substandard housing, are voluntarily displaced, or are paying more than half of their income for rent.

Status/Availability: Active Program

Eligibility: 6

Low Income Rental Rehabilitation (Section 312)

Provides financing through housing authorities to property owners for rehabilitation of "Existing" rental housing. The owners must sign a contract to keep the units available for Section 8 tenants for a period of 3-4 years.

Status/Availability: Program may be phased out over the next one or two years. This is an extremely difficult program to make work; it has not been successful in the western U.S.

Eligibility: 2

Housing Development Grants (HODAG)

This grant program is intended to increase the availability of rental housing for lower income people in areas where there is a severe shortage of such housing. Development grants are used to help private developers construct or substantially rehabilitate rental housing in those areas.

All projects assisted by development grants must reserve at least 20 percent of the units for families with incomes at or below 80 percent of the median income of the area. Owners of projects must agree to keep the assisted units available for occupancy by lower income tenants for 20 years and must agree not to convert the units to condominiums during the 20-year period.

Development grants cannot exceed 50 percent of the total cost, less acquisition, of rehabilitating or developing the building. Once selected, the projects must be under construction within 24 months of HUD approval. When construction or rehabilitation of a project has been completed and the project reaches a certain level of occupancy, it will be closed out by HUD. At that time, the city, urban county or State will become responsible for monitoring project operations and approving rent increases.

Eligible areas are cities designated in the June 30, 1984, Federal Register or urban counties which are determined to be experiencing severe housing shortages as defined in accordance with the statutory criteria. Other areas may apply if they can demonstrate a special housing need or if they have a particular neighborhood preservation purpose.

Selection criteria includes, but is not limited to, the severity of shortage of decent rental housing, availability of public-private funding, and maximum number use of units for the least cost to the Federal government. No project will be approved without proof of firm financial commitments.

Status/Availability: Active Program

Eligibility: 1

Urban Development Action Grant (UDAG)

Provides grants to designated, economically distressed cities and urban counties for residential, commercial, or industrial projects that stimulate private investment. Eligibility is determined by a combination of factors: loss of population and jobs, stagnating or declining tax base, higher percentage of poverty, low per capita income change, high unemployment, and deteriorated housing. Housing projects linked to economic development projects (e.g., mixed uses) are eligible activities.

Status/Availability: Currently active.

Eligibility: 1

Farmers Home Administration

Individual Homeownership (Section 502)

Provides for insured loans to families of low- and moderate-income, including senior citizens, who need adequate housing. Interest rates vary according to the cost of government borrowing and the maximum term for repaying is 33 years. Interest credit, which may reduce interest to as low as 1 percent, may be available to qualified low-income borrowers.

Status/Availability: Active Program

Eligibility: 6

Home Repair Loans (Section 504)

Very-low income homeowners whose houses are severely deficient may be eligible for grants or low-interest loans to make their houses safe and adequate for habitation and remove health hazards. A maximum loan of \$7,500, a maximum grant of \$5,000, or a maximum loan-grant combination of \$7,500 may be available to help very-low income elderly homeowners make necessary repairs to their homes. Applicants must be 62 years of age or older to qualify for grant assistance.

Status/Availability: Active Program

Eligibility: 6

Rental Housing Loans (Section 515)

These insured loans provide modernized rental or cooperative housing for persons with low and moderate incomes and for those age 62 and older in rural communities of not more than 10,000 population. Such loans may also be available in communities between 10,000 and 20,000 population if the facility is not within an SMSA. The loans are repayable in not more than 50 years. Provisions are made for interest reductions under certain circumstances so that low-income tenants may pay a rent within their means. Rent paid by low-income tenants also can be supplemented through a rental assistance program administered by FmHA or HUD's Section 8 rent subsidy program.

Status/Availability: Active Program

Eligibility: 4, 5

Farm Labor Housing Loans (FmHA 514/516)

Provides a combination of loans and grants for the construction, rehabilitation, or acquisition of rental housing for farmworkers, including persons employed at fish and oyster farms. A grant of up to 90 percent of the project cost is made with the remainder loans at 1 percent interest for 33 years.

Status/Availability: Sections 514/516 will be funded near current levels next year and is an attractive program in areas where farming is the predominant industry.

Eligibility: 1, 2, 4

STATE PROGRAMS

California Housing Finance Agency

Home Mortgage Purchase Program (HMP)

Provides for 30-year fixed-rate mortgages with monthly mortgage payments (principal and interest) which remain the same until the loan is fully repaid. CHFA commits funds to builders or developers, who in turn make the low interest rate mortgage available to new homebuyers through private lenders. Interest rates vary with each bond sale; HMP interest rates, therefore, may differ among developments. In order to qualify for an HMP loan, the borrower must be a first time homebuyer (or not have owned a home as a principal place of residence during the previous three years), have a moderate income, have the capacity to make a minimum of 5 percent cash down payment and pay closing costs as required, be able to meet loan underwriting standards, and not have previously obtained a CHFA loan.

Status/Availability: During Fiscal Year 1985-86, CHFA sold two single family issues totaling \$299.3 million. The issues provided both conventional private mortgage insurance and insurance made available by the Federal Housing Authority to home buyers, with interest rates ranging from 9.15 to 9.25 percent. CHFA also offering even lower rates on loans for properties in certain target areas within the state.

Eligibility: 5

Cal First Homebuyers Program (CHFA)

After a first time homebuyer acquires a first mortgage on a home, a qualified lender can offer a CHFA financed second mortgage that will decrease housing cost payments during the first six years of home ownership. During the following ten years, the mortgage payments increase to repay the second mortgage buy down.

Status/Availability: Voters have authorized up to \$200 million dollars of bonds for the program; the program has not been popular with homebuyers.

Eligibility: 6

Self-Help Housing Program (CHFA)

Provides technical supervision and training, land acquisition, development, and packaged plans and low interest loans to eligible families (under 80 percent of median income). The seven to nine months donated by families for construction serves as the down payment for the homes.

Status/Availability: Funding is obtained through the CHFA Single Family Home Mortgage Purchase Program, and CHFA has earmarked \$2 million dollars for the program as of 1984.

Eligibility: 6

Multi-Family Rehabilitation Program (CHFA)

State revenue bonds to finance rehabilitation loans in communities that are participating in the HUD Rental Rehabilitation Demonstration Program or have ongoing Community Development Block Grant or other programs. Localities may use the money to provide 15 year rehabilitation loans for existing owners, secured by second deeds of trust, or 25 year acquisition and rehabilitation loans for new owners, secured by first deeds of trust.

Status/Availability: Currently active; \$25 million in bond proceeds available.

Eligibility: 1

80/20 Rental Housing Program (CHFA)

State revenue bonds are sold in order to finance a rental development in which at least 20 percent of the units of all types and sizes are available to low and moderate income households.

Status/Availability: CHFA has financed projects at a cost of \$16 million and has a commitment to finance another \$24.4 million.

Second Unit Financing Program (CHFA)

This is a pilot program providing a source of financing for the addition and/or rehabilitation of second units utilizing Title I insured loans. The second units will provide housing for tenants with incomes not exceeding 80 percent of the median upon initial occupancy. Borrowers will be owner-occupants of detached single family housing whose household incomes upon application do not exceed 120 percent of the median income. Because of Title I restrictions, the maximum loan amount is \$17,500.

Status/Availability: At the onset of the program, CHFA decided that fund commitments would be made to localities in the total amount of \$1.5 to \$2 million, depending upon the quantity and quality of proposals. It is estimated that about 100 second units will be financed through this pilot program. As of October 1986, only two units had been financed.

Eligibility: 6

CHFA Self Help Housing Program

CHFA has agreed to provide a source of financing for construction and permanent financing of single family homes built by the self help construction method. Under this program, nonprofit housing organizations supervise families in the construction of their own homes, thereby reducing costs by 20 to 40 percent. Sweat equity serves as the down payment, provided that the loan does not exceed 80 percent of the appraised value.

Status/Availability: CHFA has set aside \$10 million for this program and funds are currently available at an interest rate of 7.25 percent.

Eligibility: 6

Multifamily Rehabilitation and Infill New Construction Program (CHFA)

CHFA developed the multifamily rehabilitation program in 1983 to provide a steady source of tax-exempt financing for use with the Rental Rehabilitation Grant Program, CDBG or other rental rehabilitation efforts, and Section 8 subsidies. The program also enables communities to utilize statewide bond issues, rather than attempting to structure their own smaller, separate bond issues. At least 20 percent of the units developed under this program must be available to low-income renters; however, through use of CHFA's bond funds and local financial resources, the percentage has actually been much higher--86 percent as of June 30, 1986.

Status/Availability: All funds allocated for this program have been committed. It is not known when a new list of eligible recipients will be established.

Eligibility: 1

80/20 Multi-Family Rental Housing Program

As of January 1, 1986, state law requires that all multifamily projects financed with tax-exempt bond proceeds set aside 10 percent of the units for low income tenants and 10 percent for very low income tenants. Current federal law simply requires that 20 percent of the unit be set aside for the low income. The balance of the units under state and federal law may be operated with market rents. CHFA sells state revenue bonds in order to finance rental developments which meet these requirements.

Status/Availability: No funds have been allocated for FY 86-87. Funding may, however, be restored for FY 87-88.

Eligibility: 5

80/20 - State/Local Pilot Rental Housing Finance Program

This program supplies funding which effectively "buys-down" the interest rate on a project's take-out financing. This buy-down, referred to as a feasibility loan, not to exceed \$150,000 per project, will reduce monthly rents and thereby make more housing available to those who fall into low- and very low-income categories. Projects considered for the program must carry with them participation from a sponsoring local government in the 20 percent - 30 percent range. 100 percent of the units in these projects are to be reserved for low- and moderate-income tenants (i.e., no market-rate rentals are allowed).

Status/Availability: The CHFA Board of Directors set aside \$1 million for this program in January 1986.

Eligibility: 4

California Department of Housing and Community Development

Deferred Payment Rehabilitation Loan Program (DPRLP)

The DPRLP provides deferred payment loan funds to local government agencies to assist with the rehabilitation of housing for low- and moderate-income households. The major objectives of the DPRLP are to rehabilitate housing to assure the continued viability of neighborhoods, to eliminate health and safety hazards, to prevent overcrowding, and to ensure the availability of low-cost housing.

Status/Availability: No funds are available at this time.

Eligibility: 1,4

Special User Housing Rehabilitation Program (SUHRP)

The SUHRP provides for three percent 30-year deferred payment loans, which provides "up-front" subsidies for the rehabilitation and/or acquisition of substandard housing. SUHRP funds may be used for apartments which will be occupied by the elderly, for group residences and apartments which will be occupied by the physically, developmentally, or mentally disabled, and for residential hotels which will be occupied by low or very-low income persons.

Status/Availability: \$2.5 million in funding is available for FY 1986-87.

Eligibility: 1, 4, 5

California Self-Help Housing Program (CSHHP)

The CSHHP (formerly the California Housing Advisory Service) provides grants and loans to self-help housing organizations that assist low and moderate income families in the building or rehabilitating of their own homes. Both mortgage and technical assistance grants are used to cover the various administrative and training costs associated with the provision of technical assistance to self-help households. The services include training and supervision of self-help builders, loan packaging and counseling services, and workshops. Mortgage assistance funds are used to reduce the cost of the self-help units.

Status/Availability: A total of \$2 million is currently available and applications for funds are accepted on a continuous basis.

Eligibility: 1, 4

Senior Citizens Shared Housing Program (SCSH)

The SCSH program provides grants to local government agencies to assist seniors in finding others with whom they can share housing. Services funded by the program include outreach, information and referral, client counseling, placement, and follow-up. The program results in reduced housing costs, prevention of premature institutionalization, efficient use of existing housing stock, and increased security and companionship for seniors.

Status/Availability: \$500,000 has been set aside for this program for FY 86-87.

Eligibility: 1, 4

Urban Predevelopment Loan Fund (PLP)

The PLP provides seven percent loans to local government agencies and nonprofit corporations. The loans can be used for a variety of predevelopment expenses incurred in securing long-term financing for the production or rehabilitation of subsidized low-income housing in urban areas. Loan terms range from one to three years and proceeds may be used to purchase land or land options, to pay advance fees for architectural, engineering, consultant, and legal services, to pay permit, bonding, and application fees, and to finance site preparation (including water and sewer development). Loans are also made to eligible borrowers for land purchase to "land-bank" sites for future development of low-income housing. Loans may not be used for administrative expenses or construction financing.

Status/Availability: The PLP Fund is revolving; funds are currently available and applications are accepted on a continuous basis.

Eligibility: 1, 2, 4

- Bankable loans are made through Security Pacific Bank at interest rates of three and six percent, based on what the household can afford. Payment is made dsirectly to the bank each month. The maximum bankable loan is \$25,000.
- Deferred payment loans are available to those who cannot qualify for bankable loans. These loans are made at three percent and are repaid when the house is sold or at the end of 20 years. The maximum deferred payment loan is \$75,000.
- Grants to a maximum of \$3,500 for repairs limited to certain exterior work are available to homeowners unable to participate in either the bankable or deferred payment programs.

To be eligible for these programs in Healdsburg, a homeowner must live in central Healdsburg, roughly in the area bounded by Healdsburg Avenue on the west, Powell Street on the north, Center Street and the railroad tracks on the south, and 2nd Street on the east. Eligibility in 1985 is also subject to the following income limits:

<u>Household Size</u>	<u>Gross Annual Income</u>
1	\$15,850
2	\$18,100
3	\$20,400
4	\$22,650
5	\$24,050
6	\$25,500
7	\$26,900
8	\$28,300

Landbanking

Landbanking is the purchase of developable land by a jurisdiction for future use. Many jurisdictions have used landbanked sites to provide affordable housing for low and moderate income people. There are two variations of the landbanking process. A developer may go to the locality with a parcel in mind which he/she cannot afford to buy, and the locality will buy it for him/her. Alternatively, the community may choose a parcel and keep it until a developer comes along to build on it. In this case, the jurisdiction has several options regarding control of the site. The most obvious is outright purchase, but this may not be the best way for the locality to use the funds set aside for landbanking. Other options include: the option to purchase, at a stated price under stated conditions; the option of first refusal, under which the property owner agrees to notify the community in case an offer is made by a second party to purchase the land; and a lease, which is useful if the property owner is unwilling to sell but is willing to develop the land. Sources of funds for landbanking have usually come from a jurisdiction's Community Development Block Grant (CDBG) monies, although money from a community's general fund can and has been used.

Limited Equity Cooperatives

A limited equity cooperative provides low and moderate income residents with the opportunity for affordable home ownership. In a limited equity co-op, like a market rate co-op, the residents form a non-profit corporation which has as many shares as there are units in the building. The units may be converted from an existing rental building, or a new building may be constructed as a limited equity cooperative.

To live in a co-op, the residents purchase a share by making a down payment. The residents' monthly payment is their share of the mortgage payment plus the costs of utilities and maintenance. A share entitles co-op members to the use of common areas and their dwelling unit. While they do not own their dwelling unit, co-op members may deduct their share of interest and tax payments when filing tax returns because they are part owners of the building.

Limited equity co-ops differ from market rate co-ops primarily in that the cost of buying a share in a limited equity co-op is generally measured in the hundreds rather than thousands of dollars and can rise only a certain amount each year. The point of limiting the equity build-up is to remove the units from market forces (unlike market rate co-ops), as well as from the rent increases of a for profit owner (unlike most rentals). Thus, the dwelling is kept permanently affordable to low and moderate income people.

Housing Mediation and Referral Services

Currently, Sonoma County Rental Information and Mediation Services (SCRIMS) provides voluntary mediation and referral services in cases of alleged housing discrimination and for tenant-landlord disputes. This program will be expanded by addition of voluntary non-binding mediation in cases of rent increases alleged to exceed increases in the cost of owning and maintaining rental property. Implementation of this service will require the preparation of guidelines to determine the types of rental housing to be covered, and the circumstances under which voluntary mediation services will be provided. An important component of the program would involve notification to appropriate apartment or mobilehome park owners' associations of all reported instances of excessive rent increases. Although the mediation process would be voluntary and non-binding for landlords, the desired effect is that notification of owners' associations will encourage self-policing by the rental housing industry, and discourage the worst instances of excessive rent increases.

Mortgage Revenue Bonds

Tax exempt mortgage revenue bonds are a source of funds which may be used to raise money for mortgage insurance and mortgage loans. The money that is generated by the bonds can then be issued at below market rates, for both single-family owner-occupied homes and multi-unit rental housing. The loans may be used for rehabilitation or new construction. Outstanding mortgage loans are collateral for the bonds. Housing finance agencies are created to issue such bonds, but other agencies, such as housing authorities, local governments, redevelopment agencies, and the State may also do so. The interest rate on the mortgage loans issued by these agencies is usually

around 1-1/4% above the interest rate paid to bondholders. Private lenders originate the loans, sell them to the city or agency, and service the loans. Private lenders collect a portion of the 1-1/4% for their services.

In September 1984, the County of Sonoma and the Cities of Healdsburg, Petaluma, Rohnert Park and Santa Rosa formed a Joint Powers Agency called the Sonoma County Home Financing Authority to sell tax exempt mortgage revenue bonds.

The bond proceeds are used by developers selected by the Authority to make mortgages primarily to first-time homebuyers. In Healdsburg participation is not limited to first-time homebuyers. Because public agency bond revenues are being used, the interest rate on the loans runs two to three percent below market rate interest. The monthly savings to a homebuyer can amount to \$200 or more per month.

APPENDIX II-B

SPECIAL HOUSING REQUIREMENTS

In addition to requiring each city and county to adopt a housing element, the California Legislature has enacted some very specific requirements to ensure that local regulatory procedures do not constrain housing development. This appendix summarizes these special housing mandates.

Findings on Housing Limits

Any city or county adopting or amending its general plan in a manner that limits the number of units that may be constructed on an annual basis must make specified findings concerning the efforts it has made to implement its housing element and the public health, safety and welfare considerations that justify reducing the housing opportunities of the region (Government Code Section 65302.8).

Housing Disapprovals and Reductions

When a proposed housing development complies with applicable local policies and regulations in effect at the time the application is determined to be complete, the local agency may not disapprove the project or reduce its density unless it makes specified findings (Government Code Section 65589.5).

Solar Energy Systems

Cities and counties may not enact zoning provisions that effectively prohibit or unnecessarily restrict the use of solar energy systems, except for the protection of public health or safety (Government Code Section 65850.5). Allowable "reasonable restrictions" include those that do not significantly increase the cost of the solar system or significantly decrease its efficiency and those that allow for an alternative system of comparable cost and efficiency.

Secondary Residential Units

To encourage establishment of secondary units on existing developed lots cities and counties are required to either (1) adopt an ordinance based on standards set out in the law authorizing creation of second units in residentially zoned areas; or (2) where no ordinance has been adopted, allow second units by use permit if they meet standards set out in the law (Government Code Section 65852.2). Local governments are precluded from totally prohibiting second units in residentially zoned areas unless they make specific findings.

Mobilehomes in Single-Family Zones

Cities and counties may not totally prohibit installation of mobilehomes on permanent foundations on lots zoned for single-family dwellings (Government Code Section 65852.3). However, cities and counties may specify those

single-family zoned lots upon which mobilehomes may be placed. Cities and counties may subject mobilehomes to the same standards that apply to single-family dwellings.

Mobilehome Parks - Permitted Uses

A mobilehome park is deemed by state law to be a permitted use on all land general planned and zoned for residential use (Government Code Section 65852.7). However, cities and counties may regulate mobilehome parks by use permit.

Growth Limiting Ordinances

In adopting zoning ordinances, cities and counties must consider the effects of such ordinances on the housing needs of the region and balance these regional needs against the needs of their residents for public services and the available fiscal and environmental resources (Government Code Section 65863.6). Any city or county adopting a zoning ordinance that limits the number of housing units that may be constructed on an annual basis must make findings concerning the public health, safety, and welfare considerations of the city or county that justify such action.

Mobilehome Park Conversions

Any person proposing to convert a mobilehome park to another use must prepare and file a report on the impact of the conversion on the displaced mobilehome park residents (Government Code Section 65863.7 and 66427.4). The city or county with jurisdiction must consider the impact report at a public hearing and may require as a condition of approval of the conversion that the project sponsor mitigate the impacts of displacement.

Notification on Mobilehome Park Conversions

A city or county that has received an application for a mobilehome park conversion must notify the applicant at least 30 days prior to any hearing or action of state and local requirements for applicant notification of mobilehome owners and park residents concerning the proposed change (Government Code Section 65863.8). No action may be taken on the application until the applicant has satisfactorily verified that mobilehome owners and park residents have been properly notified.

Mobilehome Park Conversion Mitigation

Cities and counties when approving a subdivision map for conversion of a mobilehome park must mitigate the impact of such conversion by (1) zoning for additional replacement housing; (2) making a finding that there is adequate space in existing mobilehome parks or adequate land zoned for mobilehomes development; (3) requiring the developer to mitigate the impact; or (4) making a finding that mitigation is infeasible (Government Code Section 66427.4).

Limitations on Development Permit Fees

Fees charged by local public agencies for zoning changes, variances, use permits, building inspections, building permits, subdivision map processing, or other planning services may not exceed the estimated reasonable cost of providing the service for which the fee is charged (Government Code Sections 54990 and 65909.5). Fees may exceed this limit only with a two-thirds vote of the electorate.

Residential Zoning

Cities and counties must zone a sufficient amount of vacant land for residential use to maintain a balance with land zoned for non-residential use (e.g., commercial and industrial) and to meet the community's projected housing needs as identified in the housing element of the general plan (Government Code Section 65913.1).

Residential Subdivision Standards

Cities and counties may not impose standards for design and improvement for the purpose of making the development of housing for any and all economic segments of the community infeasible (Government Code Section 65913.2).

Coordinated Permit Processing

Each city and county must designate a single administrative entity to coordinate the review and decision-making and provision of information regarding the status of all applications and permits for residential, commercial and industrial developments (Government Code Section 65913.3).

Density Bonuses

When a developer agrees to construct at least 25 percent of the total units in a housing development for low or moderate income households, or 10 percent of the total units for lower-income households, or 50 percent of the total units for qualifying senior citizens, the city or county must either grant a density bonus or provide other incentives of equivalent financial value (Government Code Section 65915). The density bonus must increase by at least 25 percent the otherwise maximum allowable density specified by the zoning ordinance and the land use element of the general plan. Each city or county must set up procedures for carrying out these provisions.

Density Bonuses for Condominium Conversions

When a developer proposing to convert apartments to condominiums agrees to provide at least 33 percent of the total units in the proposed condominium project for low or moderate income households, or 15 percent of the total units for lower income households, at least 50 percent for qualifying senior citizens, the city or county must either grant a density bonus or provide other incentives of equivalent financial value (Government Code Section 65915.5). The density bonus must increase by at least 25 percent over the number of apartments to be provided within the existing structure proposed for conversion.

CEQA and Density Reductions

Cities and counties may deny or reduce the density set forth by the general plan for a housing project only as a mitigation measure for a specific adverse impact upon public health or safety pursuant to the California Environmental Quality Act and only when there is no other feasible mitigation that would achieve comparable density results (Public Resources Code Section 21085).

Residential Energy Conservation

Requires cities and counties to adopt energy conservation standards for new residential dwellings (excluding apartment houses with four or more stories and hotels). This law went into effect June 15, 1983.

Incentives for Low-Income Housing Development

Local governments are required to provide specified incentives, which may include reduction of site development standards, density bonuses, mixed use zoning approval, or other incentives which result in identifiable cost reductions, for developers who set aside 20 percent or more of a development's units for low-income households. Any density bonus granted pursuant to this provision is an alternative to, and not in addition to, an otherwise granted density bonus (Government Code Section 65913.4).

Redevelopment Replacement Housing

Redevelopment plans must provide replacement housing on a "one-for-one" basis for low and moderate income persons displaced by redevelopment activity (Health and Safety Code Section 33334.5).

Tax Increment Funds for Housing

Redevelopment agencies must use at least 20 percent of tax increment revenues generated by a redevelopment project to increase and improve the community's supply of housing for persons of low and moderate income (Health and Safety Code Section 33334.2). Certain findings may be made by the agency to set aside less than 20 percent if no need exists for such housing, if less than 20 percent is required to meet the need, or if a substantial effort to meet the needs is being made.

CHAPTER III

POPULATION

INTRODUCTION

Understanding who lives in the community and how the population has grown and is expected to grow in the future is important to establishing the city's land use patterns and setting policies for the provision of housing and public facilities and services. This Chapter reviews historical population trends, current demographics, and population projections for the County and City.

HISTORICAL POPULATION GROWTH

Since the turn of the century, Healdsburg has grown at a steady but modest pace. The one exception was the decade of the 1920s when Healdsburg dropped 416 in population. In the 1950s, Healdsburg had its greatest growth period, but the growth rate dropped dramatically in the 1960s, rebounding again in the 1970s. Since 1980, Healdsburg has grown 17.7 percent. Table III-1 and Chart III-1 both depict Healdsburg's growth since 1910.

In 1987 the California Department of Finance estimates Healdsburg's population at 8,495. An estimated 1,169 persons live outside of incorporated Healdsburg within the city's Urban Service Area, bringing the total estimated population of the Urban Service Area to approximately 9,664.

TABLE III-1
HEALDSBURG HISTORICAL POPULATION GROWTH

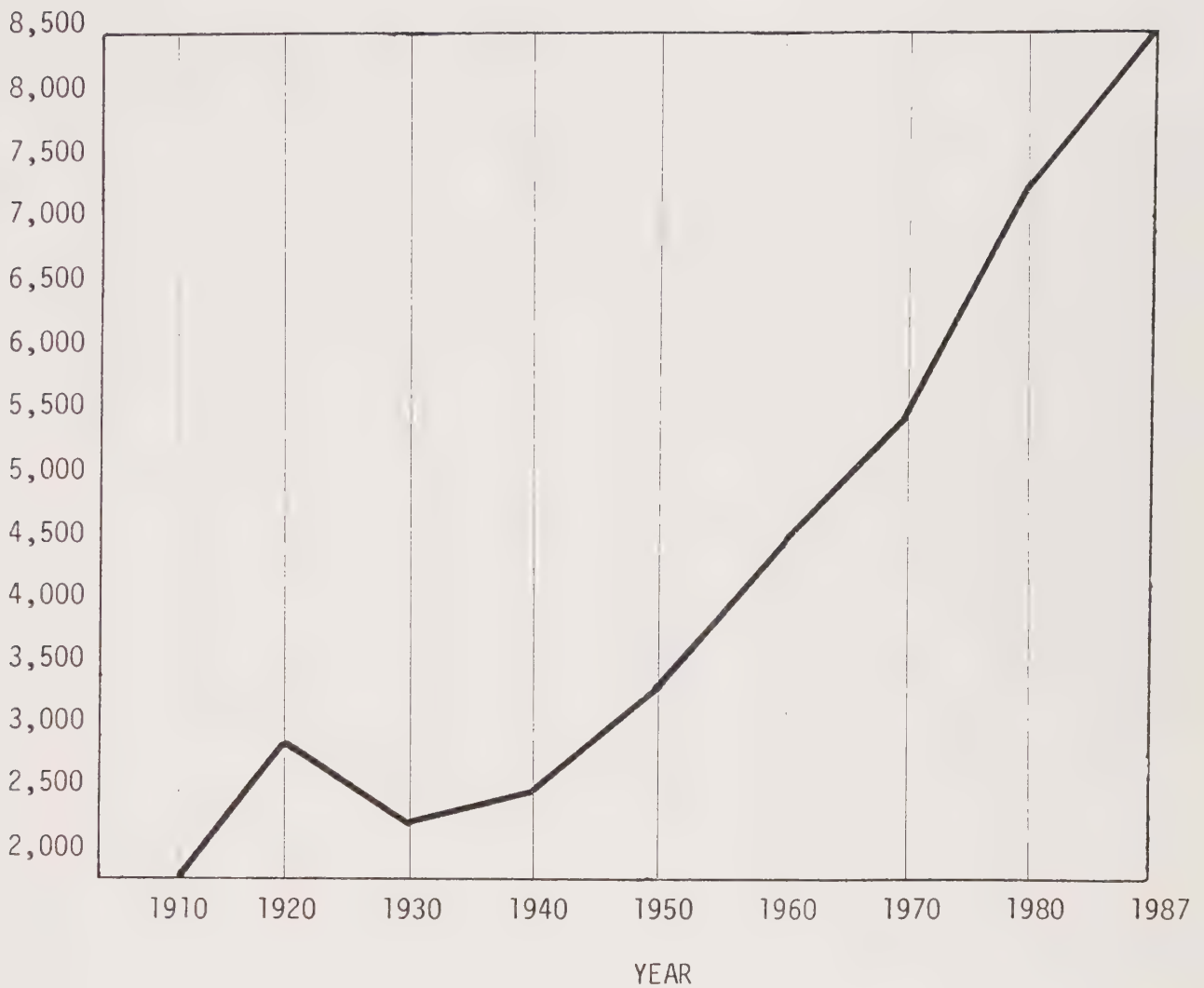
	<u>Population</u>	<u>Population Increase</u>	<u>% Increase</u>
1910	2,011	--	--
1920	2,712	701	34.9
1930	2,296	-416	-15.3
1940	2,507	211	9.2
1950	3,258	751	30.0
1960	4,816	1,558	47.8
1970	5,440	624	13.0
1980	7,217	1,777	32.7
1981	7,274	57	.8
1982	7,559	285	3.9
1983	7,615	56	.7
1984	7,709	94	1.2
1985	7,897	188	2.4
1986	8,286	389	4.9
1987	8,495	209	2.5

Sources: U.S. Bureau of the Census; California Department of Finance

CHART III-1

HEALDSBURG POPULATION GROWTH
(1910-1987)

Total
Population
(Persons)



For the period 1950 to 1980 Healdsburg grew at a much more modest rate than Sonoma County as a whole, as shown in Table III-2. However, since 1980, Healdsburg's growth, at an average annual rate of 2.5 percent, has roughly paralleled that of Sonoma County.

TABLE III-2
POPULATION GROWTH
Healdsburg, Sonoma County and Region

	Healdsburg		Sonoma County		Region*	
	<u>Population</u>	<u>% Change</u>	<u>Population</u>	<u>% Change</u>	<u>Population</u>	<u>% Change</u>
1950	3,258		103,405		2,681,322	
1960	4,816	(47.8)	147,375	(42.5)	3,638,939	(35.7)
1970	5,440	(13.0)	204,885	(39.0)	4,630,311	(27.2)
1980	7,217	(32.7)	299,681	(46.3)	5,179,784	(11.9)
1981	7,274	(0.8)	304,958	(1.8)		
1982	7,559	(3.9)	311,219	(2.1)		
1983	7,615	(0.7)	317,703	(2.1)		
1984	7,709	(1.2)	323,501	(1.8)		
1985	7,897	(2.4)	330,023	(2.0)	5,521,000	(6.6)
1986	8,286	(4.9)	339,350	(2.8)		
1987	8,495	(2.5)	349,089	(2.9)		

* Nine County Bay Area

Sources: U.S. Bureau of the Census; California Department of Finance;
Association of Bay Area Governments

POPULATION CHARACTERISTICS

Age and Sex Distribution

Healdsburg's population age structure varies markedly from those of the county and state. Median age in Healdsburg is 33.4 years, compared with 31.8 years for Sonoma County and 29.9 years for California. This difference is accounted for in large part by the higher percentage of persons over 65 years in Healdsburg. In Healdsburg, this category as a percentage of total population is 28 percent larger than the same group in Sonoma County and 70 percent larger than the same group statewide.

At the same time the 18-64 years category in Healdsburg is proportionately smaller than the same group in Sonoma County and the state.

TABLE III-3
AGE-SEX DISTRIBUTION
Healdsburg
1980

	<u>Male</u>	<u>Female</u>	<u>Total</u>
0- 4	259	246	505
5-17	631	664	1,295
18-29	715	674	1,389
30-64	1,305	1,474	2,779
65+	<u>449</u>	<u>750</u>	<u>1,249</u>
Total:	3,409	3,808	7,217

Source: U.S. Bureau of the Census

TABLE III-4
AGE STRUCTURE BY PERCENTAGE
Healdsburg
1960, 1970, 1975 and 1980

	<u>Age Group</u>		
	<u>0 - 17</u>	<u>18 - 64</u>	<u>65+</u>
1950	26.5	57.7	15.8
1960	38.1	50.0	11.9
1970	32.5	51.2	16.3
1975	28.1	55.2	16.7
1980	24.9	57.8	17.3

Sources: U.S. Bureau of the Census; 1975 Special Census

TABLE III-5
AGE STRUCTURE BY PERCENTAGE
Healdsburg, Sonoma County and California
1980

<u>Age Group</u>	<u>Healdsburg</u>	<u>Sonoma County</u>	<u>California</u>
0- 4	7.0	6.8	7.2
5-17	17.9	19.3	19.8
18-64	57.8	60.3	62.8
65+	17.3	13.5	10.2
Median Age	33.4	31.8	29.9

Source: U.S. Bureau of the Census

Several forces seem to be at work in Healdsburg. First, because of limited job opportunities in the immediate area, many young people appear to be leaving Healdsburg and are not being replaced by young newcomers. Second, because of the relative stability of the Healdsburg residents and the slow growth rate, the existing population is, on the average, growing older. Third, a large proportion of newcomers to Healdsburg are retired persons attracted by senior citizen housing and the ambience and amenities of the area.

Ethnic Composition

Healdsburg's population is approximately 90 percent white. This is slightly lower than the rate for the county as a whole but significantly higher than the state rate. Of the white population, however, the percentage of persons of Spanish origin in Healdsburg is approximately twice the county proportion. The percentage of persons of Spanish origin increased in Healdsburg from 6.5 percent in 1975 to 14.3 percent in 1980. A portion of those reporting "Other" race in the 1980 Census is likely of Spanish origin also, so the discrepancy between the city and county Spanish origin populations could be even larger than indicated.

TABLE III-6
ETHNIC COMPOSITION BY PERCENTAGE
Healdsburg, Sonoma County and California
1980

	<u>Healdsburg</u>	<u>Sonoma County</u>	<u>California</u>
White	89.3	92.8	76.2
Black	0.2	1.2	7.7
American Indian	1.0	1.2	0.9
Asian/Pacific Islander	0.7	1.5	5.2
Other	8.7	3.4	10.0
Spanish Origin (white)	14.3	6.9	19.2

Source: U.S. Bureau of the Census

TABLE III-7

ETHNIC COMPOSITION
Healdsburg
1960, 1970 and 1980

	<u>1960</u>	<u>1970</u>	<u>1980</u>
White	98.6%	96.5%	6,443 (89.3%)
Black	.1%	--	17 (0.2%)
American Indian	--	1.0%	74 (1.0%)
Asian/Pacific Islander	--	--	54 (0.7%)
Other	1.3%	2.5%	629 (8.7%)
Spanish Origin (white)			1,034 (14.3%)

Source: U.S. Bureau of the Census

Household and Family Composition

A household is any group living together in a residence, whether related or unrelated. Over the years average household size has steadily declined nationwide. In 1970 average household size in Healdsburg was 2.63 persons; the figure dropped to 2.49 in 1980 and to 2.42 by 1987.

The total number of households in Healdsburg has increased from 2,885 in 1980 to 3,450 in 1987.

TABLE III-8
HOUSEHOLD COMPOSITION
Healdsburg
1970, 1980, 1987

	<u>1970</u>	<u>1980</u>	<u>1987 (est.)</u>
Total Population	5,438	7,217	8,495
Total Population, in Households	5,393	7,183	8,341
Total Population, in Group Quarters	45	34	154
Number of Households	2,049	2,885	3,450
Persons Per Household	2.63	2.49	2.42

Sources: U.S. Bureau of the Census; California State Department of Finance

As Table III-9 shows, healdsburg has a lower percentage of families with children (47.2 percent) than does Sonoma County (51.6 percent). While Healdsburg has a greater proportion of female-headed families (14.5 percent) than the county (13.4 percent), the number of such families with children under 18 is lower in Healdsburg (69.9 percent) than in the county as a whole (73.0 percent).

TABLE III-9
FAMILY TYPE
Healdsburg and Sonoma County
1980

	<u>Healdsburg</u>		<u>Sonoma County</u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
Total Families	2,047	100.0%	79,363	100.0%
With Children Under 18	967	47.2%	40,933	51.6%
Married Couples	1,687	100.0%	65,573	100.0%
With Children Under 18	720	42.7%	31,287	47.7%
Female Householder, No Spouse	296	100.0%	10,697	100.0%
With Children Under 18	207	69.9%	7,812	73.0%

Source: U.S. Bureau of the Census

Residence

The residential pattern of Healdsburg households indicates that the community is more stable than with other communities in the state. A larger proportion of Healdsburg residents than Sonoma County residents lived in the same residence five years earlier (46.6 percent compared with 43.0 percent). Also, compared with Sonoma County, Healdsburg had a much smaller proportion of residents who moved into the community from out of the county (25.4 percent compared with 29.3 percent).

TABLE III-10

HOUSEHOLD RESIDENCE IN 1980 COMPARED TO 1975
Healdsburg and Sonoma County

	<u>Healdsburg</u>	<u>Sonoma County</u>
Same House	3,122 (46.6%)	120,195 (43.0%)
Different House, Same County	1,871 (27.9%)	77,450 (27.7%)
Different County, Same State	1,240 (18.5%)	58,915 (21.1%)
Different State	409 (6.1%)	18,766 (6.7%)
Abroad	57 (0.8%)	4,239 (1.5%)

Source: U.S. Bureau of the Census

POPULATION PROJECTIONS

Healdsburg is located in the fastest growing county in the region. Between 1970 and 1980 Sonoma County grew 46.3 percent. While the county growth rate through the remainder of this century is expected to be lower than 1970's rate, the Sonoma County Planning Department expects relatively high growth in absolute numbers, with county population increasing to 440,000 by the year 2000. Average annual growth in the county during the 1980-2000 period will likely be about 7,000 persons with net migration accounting for about 70 percent of annual growth (Sonoma County Planning Department, 1984). Growth after the year 2000 is projected to occur at a slightly slower pace than to the 1980-2000 period, with population reaching 475,000 by 2005. The Association of Bay Area Governments projections generally confirm the County's projections.

TABLE III-11
POPULATION PROJECTIONS
Sonoma County
1980-2005

	Sonoma Co. (78)	Sonoma Co. (86)	ABAG (83)	ABAG (85)
1980	287,800	299,681	299,681	299,681
1985			331,150	332,300
1990	365,000	364,000	363,900	362,650
1995				398,850
2000	430,000	440,000	404,400	440,800
2005		475,000	440,100	475,950

Sources: Sonoma County Planning Department; Association of Bay Area Governments.

Sonoma County's recent population projections assume that an increasing proportion of population growth will occur within incorporated cities. In 1980, 55.5 percent of Sonoma County's population lived in incorporated cities; this proportion is expected to increase to 67.1 percent by the year 2005 (Sonoma County Planning Department, 1986).

TABLE III-12
POPULATION OF SONOMA COUNTY'S CITIES
1980-2005

	Actual Population 1980	Projected Population		
		1990	2000	2005
Cloverdale	3,989	5,300	7,100	8,200
Cotati	3,475	4,600	6,200	6,700
Healdsburg	7,220	9,500	13,000	14,800
Petaluma	33,834	41,700	53,500	58,700
Rohnert Park	22,965	31,500	38,300	42,200
Santa Rosa	83,320	117,000	150,000	165,000
Sebastopol	5,595	7,000	9,000	10,400
Sonoma	6,054	7,800	10,800	12,500
Total All Cities:	166,452	224,400	287,900	318,500
County Population	299,681	364,000	440,000	475,000
Cities as % of County Population	55.5	61.6	65.4	67.1

Sources: U.S. Bureau of the Census; Sonoma County Planning Department

The most dramatic city growth will occur in Santa Rosa. By the year 2000, Santa Rosa is expected to grow to 150,000 and to 165,000 by the year 2005.

Unincorporated Windsor is also expected to grow dramatically to 24,000 by the year 2005. Geyserville is expected to grow from its present population of 450 to only 600 by the year 2005.

Earlier population projections for Healdsburg have been unrealistic. Healdsburg's 1963 General Plan, for example, projected that population within the 39 square-mile planning area would reach 16,000 by 1985, with approximately 12,000 residing in the urbanized area on lots of one acre or less. In fact, Healdsburg area population has grown only to about 9,700 in 1987.

TABLE III-13
POPULATION PROJECTIONS
Healdsburg
1980-2005

	Sonoma Co. (78)	Sonoma Co. (86)	ABAG (83)	ABAG (85)
1980	7,800	7,220	7,281	7,281
1985			9,000	8,000
1990	11,700	9,500	10,400	9,900
1995			12,300	11,900
2000	14,500	13,000	14,200	13,600
2005		14,800		14,500

Sources: Sonoma County Planning Department; Association of Bay Area Governments.

Recent population projections by Sonoma County and ABAG, shown in Table III-13, project Healdsburg to grow to between 13,000 and 13,600 by the year 2000, and to between 14,500 and 14,800 by the year 2005.

FINDINGS

- Except for the 1950s, Healdsburg has grown relatively slowly, typically two to three percent a year. Largely because of this slow growth rate, Healdsburg has been able to assimilate newcomers without its basic character. Rapid growth in the future could jeopardize the existing social cohesiveness of the community. Therefore, the General Plan will need to address the timing and pace of future population growth.

- Owing to County land use and growth policies which support development within existing urban centers and because Healdsburg controls the area's key water and sewer systems, the City of Healdsburg has direct control over the timing and pace of future population growth within the Healdsburg Planning Area. The chief tools available to the City to control growth are its annexation powers, public service extension decisions, and zoning.
- Growth in Santa Rosa and Windsor will overshadow Healdsburg's growth. Healdsburg must decide what role it will play relative to these two other areas in terms of accommodating industrial and commercial development and providing housing for employees of these other areas.
- Compared to Sonoma County and California, Healdsburg has a disproportionately large share of older residents. If present trends continue, the share of older residents will continue to grow. The age structure of the community is important to making decisions about the housing mix and provision of transit, medical, and recreation services.

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CHAPTER IV

ECONOMIC CONDITIONS AND FISCAL CONSIDERATIONS

INTRODUCTION

Long-range city development plans must be based on the economic realities of the marketplace and the fiscal constraints on the ability of the City of Healdsburg to provide services for both existing and future development. This Chapter reviews the market factors affecting the demand for commercial and industrial development in Healdsburg and assesses the fiscal considerations--both revenue sources and expenditures--that affect the City's capacity to provide services. This Chapter presents order-of-magnitude projections and general conclusions that will be used in developing the General Plan. It is not a detailed market assessment of the demand for any particular type of use, nor can it be used without more detailed analysis for establishing a City fee structure; these purposes are beyond the scope of the General Plan.

ECONOMIC MARKET FACTORS AFFECTING THE DEMAND FOR COMMERCIAL AND INDUSTRIAL DEVELOPMENT IN HEALDSBURG

This section analyzes the market factors affecting the demand for commercial and industrial development in Healdsburg. The analysis provides order-of-magnitude demand projections for the city over the next 20 years (1985-2005); this section also considers the development potential of currently vacant and underutilized parcels in relationship to one another and to other competitive locations in the market area.

Retail and Office Development

Market Demand for Retail and Office Space

The city's market demand for commercial space comprises two major components: the demand for local population-serving retail and office space and the demand for visitor-related retail activity.

Local-Serving Retail Activity

Market Area

Presently, most of Healdsburg's retail activity is a consequence of local purchases by local residents. Most shoppers in the city's retail stores are from Healdsburg or nearby areas. Yet, the extent of the city's retail market area (the region from which most customers are drawn) varies for different types of stores.

For the purposes of this analysis, Healdsburg's retail stores are grouped into four general categories based on the type of goods they sell. Stores offering convenience goods include grocery stores and drug stores. As the name implies, convenience goods are purchased frequently and regularly, and constitute the items most shoppers buy on a weekly or daily basis. Because they are purchased relatively often, most shoppers are unwilling to travel

far for convenience goods and place a premium on their availability near home or work.

Stores offering comparison goods include department stores, apparel stores, home furnishing and appliance stores, jewelry stores, sporting goods stores, photo and music stores, and other specialty stores. Comparison goods are not purchased as frequently as convenience goods and are typically more expensive. Their higher unit cost encourages shoppers to compare the goods offered at several stores. As a consequence, shoppers are willing to travel farther to purchase comparison goods. Thus, the market area for comparison goods is larger than for convenience goods.

Eating and drinking places include restaurants and bars. The size of the market area for eating and drinking places can vary by the type of establishment. Many restaurants attract customers from a wide area, but many bars are patronized by mostly local residents. Typically, though, the market area for eating and drinking places is larger than the market area for convenience goods.

Other retail stores include lumber and building materials stores, auto dealers and auto supply stores, and service stations. These stores typically draw their customers from a relatively large area.

In general, then, the market area for convenience goods usually is limited to the immediate local area and the market area for comparison goods, eating and drinking places, and other retail stores extends to communities farther away. In Healdsburg, the market area for stores selling convenience goods generally includes Healdsburg, Windsor, and surrounding rural areas (i.e., Census Tracts 1538, 1539, and 1540). For all other categories of retail stores in Healdsburg, the market area probably extends to Geyserville and Cloverdale and their surrounding rural areas, including the communities in the convenience goods market area (i.e., Census Tracts 1538, 1539, 1540, 1541, and 1542).

Retail Sales Activity

Healdsburg has a relatively high level of retail sales activity for a city of its size. Total retail sales amounted to about \$133 million in 1984. Taxable retail sales were about \$119 million in 1984. Food for home consumption and prescription medicine account for nearly all of non-taxable retail sales. Roughly two-thirds of the city's sales result from purchases made in retail stores. The other third comes from retail sales in non-retail establishments, primarily Boise Cascade and Basalt.

Since 1978, total sales in Healdsburg's retail stores have grown by roughly 20 percent in constant dollars (adjusted for inflation). Much of this growth has occurred in the last few years, as Healdsburg's economy rebounds from the recession of the early 1980s. Of the four major categories of retail stores (convenience goods, comparison goods, eating and drinking places, and other retail stores), only comparison goods have experienced a decline in constant dollar sales over the last six years. Both convenience goods and eating and drinking places have shown relatively strong sales growth. Sales in other retail stores have grown by a small amount.

The relative strength of retail activity in Healdsburg can be seen by comparing per capita retail sales in the city with per capita sales in other areas. Table IV-1 shows the per capita sales in Healdsburg, Santa Rosa, and the state as a whole for the four major categories of retail stores. Total per capita sales in Healdsburg exceed per capita sales in Santa Rosa by about 9 percent and the state average by about 80 percent. Healdsburg's per capita sales are higher because some stores are attractive to city residents as well as to shoppers from beyond the city limits. Generally, per capita sales that are significantly higher than the state average indicate an inflow of regional shoppers and sales to city stores. Per capita sales that are significantly lower than the state average indicate that many city residents go to other communities to do their shopping.

TABLE IV-1
1983 PER CAPITA RETAIL SALES IN RETAIL STORES
Healdsburg, Santa Rosa and California
(1984 Dollars)

TYPE OF RETAIL STORE ¹	ANNUAL PER CAPITA SALES ²		
	HEALDSBURG	SANTA ROSA	CALIFORNIA
Convenience Goods	\$3,980	\$3,000	\$1,900
Comparison Goods	1,040	4,030	1,640
Eating and Drinking Places	690	860	620
Other Retail Stores	5,070	2,040	1,860
Total, Retail Stores	\$10,780	\$9,930	\$6,020

¹ See text for definition of retail store groupings.

² Total retail sales in retail stores, including sales for taxable and non-taxable items. Sales of non-taxable items were estimated using state averages for food stores and drug stores. All figures rounded to the nearest ten dollars.

Source: California Department of Finance; State Board of Equalization; Consultant Team

Healdsburg's per capita sales are high for convenience goods and for other retail stores, exceeding the comparable per capita sales in the state as a whole and in Santa Rosa. Sales of convenience goods are high because the city's grocery and drug stores are the closest major stores of these types for a large rural area surrounding Healdsburg. High per capita sales at other retail stores are attributable to the popularity of the city's auto dealers and building materials suppliers with many northern county residents. For both categories of retail stores, shoppers from outside the city constitute a large share of Healdsburg's sales activity.

Per capita sales of comparison goods in Healdsburg are lower than the state average and much lower than the per capita sales in Santa Rosa. This indicates that Healdsburg stores are relatively weak in attracting comparison goods shoppers. Most of the comparison goods purchases of the residents of Healdsburg and other northern county communities are made in Santa Rosa. The recent expansion of Santa Rosa's downtown retail district has strengthened Santa Rosa's dominance in attracting the comparison goods shopping of county residents. This explains why the per capita sales of comparison goods in Healdsburg is about one-quarter the amount in Santa Rosa, and why the total sales volume of comparison goods purchases in Healdsburg has been declining in recent years.

Per capita sales at eating and drinking places in Healdsburg are slightly higher than the state average, but about 20 percent lower than in Santa Rosa. The difference in per capita sales between Santa Rosa and Healdsburg arises partially because Santa Rosa serves as a regional center for dining, and because the city's large employment base supports numerous eating and drinking establishments.

Outlook for Growth in Local-Serving Retail Sales

Convenience Goods

Healdsburg's grocery and drug stores attract a large share of the spending of the residents of the market area. Perhaps as much as 75 to 80 percent of the convenience goods purchases of market area residents is made in Healdsburg stores. The new Vineyard Plaza shopping center has helped to strengthen the market area dominance of Healdsburg's grocery and drug stores.

Market analysis performed by Safeway, Thrifty and Payless indicate they expect Healdsburg to continue to attract a growing portion of the North County market. The inability of Windsor's Raley's Center to draw much more than a portion of that area's growing market is indicative of the prospect that Healdsburg can hold or increase its share of the growing North County market.

Increases in sales of convenience goods in Healdsburg will depend primarily on residential growth within the city, the immediate surrounding areas, and to a lesser extent from communities north of Healdsburg. The greatest potential for increased demand for convenience goods will probably come from the city's northern areas, where residential development could increase the existing population in Healdsburg by half or more. New residents of Healdsburg are likely to show shopping characteristics similar to those of

existing residents, doing nearly all their shopping for convenience goods in local stores.

Comparison Goods

Stores in Healdsburg that sell comparison goods have not been performing well in recent years. Sales of comparison goods in 1984 were lower than in 1978, in constant dollars. The residents of the market area do most of their comparison goods shopping in Santa Rosa. Healdsburg stores capture perhaps only 15 percent of the market area's spending potential for comparison goods.

The short-term outlook for comparison goods sales in Healdsburg is mixed. Sales grew between 1983 and 1984, showing a strong rebound with the recovery of the general economy. Yet, the sales growth was not enough to prevent the demise of Rosenberg & Bush, the city's oldest department store, in 1985. With the closing of Rosenberg & Bush, Healdsburg is likely to experience some additional loss of sales to Santa Rosa stores.

Over the longer-term, the Healdsburg market area will experience a growth in population and a rise in the average income of trade area residents. These changes will lead to an increase in the total spending potential of the market area. It is, however, questionable whether Healdsburg stores can attract a significant share of this potential for comparison goods shopping.

The outlook for comparison goods stores in Healdsburg is hampered by the fact that most residential growth in the market area over the next 15 to 20 years is expected to occur in Windsor. Some new stores will be established in Windsor to capture a portion of this spending potential. But the larger share of the comparison goods spending of future Windsor residents will go to stores in nearby Santa Rosa. Healdsburg can probably expect to attract only a very small share of the comparison goods spending of Windsor residents over the longer-term.

The future residents of Healdsburg and communities to the north would be more likely than Windsor residents to shop in Healdsburg for comparison goods. Yet, even for these shoppers Santa Rosa is expected to remain the preferred location for comparison goods purchases.

The Downtown Promotion District shopping center-type promotion program should aid the City's effort to increase its comparatively low market share. The Swenson West Plaza project office component along with the Jordan Oil office move to Healdsburg will measurably increase downtown pedestrian traffic, assisting comparison shopping growth. Swenson's West Plaza retail project is currently targeting its leasing efforts in the apparel area which is the weakest component of the current comparison shopping market share and thus one of the easiest to increase.

The future volume of comparison goods shopping in Healdsburg is likely to depend on the successful revitalization of the downtown area. The city has an opportunity to capture a portion of the increased spending potential of the market area. This may not occur, however, until the proposed hotel and other components of the Plaza-area redevelopment begin to attract visitors. To a large degree, the spending of visitors may provide a catalyst for the

growth of comparison goods retailing in the city. Many types of comparison goods stores are likely to appeal to both visitors and market area residents. The customers from the two groups could provide elements of economic vitality now lacking for many Healdsburg stores: the infusion of high volume (but seasonal) visitor sales in combination with the steady (but lower volume) patronage of local residents.

If visitor activity in the downtown remains minimal, Healdsburg could probably expect a small amount of growth in local-serving comparison goods retail sales over the next 15-20 years. Higher levels of visitor activity in the Plaza area, however, could stimulate more opportunities for retailers and attract a larger share of the spending of market area residents on comparison goods. In either case, the potential for significant changes in the volume of local-serving comparison goods sales is limited. Even with an active downtown shopping district appealing to both visitors and local residents, the majority of the comparison goods purchases by future market area residents would still be made in Santa Rosa.

Eating and Drinking Places

The retail sales activity at restaurants and bars in Healdsburg is relatively high, given the size of the city and its limited number of establishments. During the six-year period between 1978 and 1984, eating and drinking places experienced the highest percentage increase in sales of the four major categories of retail stores. Healdsburg's restaurants and bars capture perhaps 30 percent of the spending of market area residents for eating and drinking out.

Market growth at restaurants is in part due to attracting a significant portion of the Santa Rosa population coupled with an increasing share of the local market, according to restaurant operators. Conventional theory says that as the number and diversity of restaurants increase, the market share increases. This appears to be happening in Healdsburg at the present time.

Population growth, rising household incomes, and an increasing propensity for households to dine out will improve the market area's spending potential for eating and drinking places in the future. This should contribute to sales growth for Healdsburg's restaurants and bars.

Several factors are likely to affect Healdsburg's ability to capture the spending of local residents at eating and drinking places. The fact that the majority of the population growth in the market area will occur in Windsor could lessen Healdsburg's potential to attract increased market area spending to the extent future Windsor residents prefer restaurants in their own community or in Santa Rosa. Yet, even if Windsor residents are oriented southward for most of their spending at restaurants and bars, Healdsburg's eating and drinking places do have an opportunity to capture at least a portion of this demand.

The outlook for market area spending at eating and drinking places in Healdsburg could also depend on the level of future visitor activity in the city. Similar to the potentials for comparison goods shopping, spending of market area residents in Healdsburg could be higher if future visitor activity stimulates new establishments and additional business opportunities

for retailers. Many eating and drinking places would appeal to both local residents and visitors. The infusion of visitor spending should improve the likelihood of success for new and existing eating and drinking places in Healdsburg. This additional sales activity could support restaurants that might find it difficult to survive on only the spending of local residents. The expanded opportunities fostered by visitor spending could, in turn, lead to a greater range of restaurant offerings that might attract more local spending than would occur otherwise.

Even with wider dining opportunities stimulated in part by visitor spending, it will be difficult for Healdsburg's eating and drinking places to capture an increased share of the growing spending potential of the market area. Restaurants in other communities in the market area and in Santa Rosa will continue to attract the spending of local residents. Healdsburg's ability to draw diners from Santa Rosa and other surrounding areas is highly dependent on the individual characteristics of the restaurants themselves and their relative appeal (in terms of food, ambience, etc.) to individuals in the market area. Yet, if Healdsburg is able to capture a smaller share of the spending of a much larger number of market area residents in the future, the city should experience an increase in the demand for its eating and drinking places.

Other Retail Stores

Sales activity in Healdsburg's "other retail stores" (including stores selling automobiles, auto supplies, building materials, and gasoline) is very strong. The city's auto dealers account for most of the sales in this category, followed by service stations and then retail stores offering building materials and lumber. Perhaps 50 percent of the spending of market area residents at "other retail stores" is done in Healdsburg.

The market demand for these stores is likely to remain strong. Future population and employment growth will add to the market area's spending potential. Healdsburg stores should continue to capture a significant share of the local spending at other retail stores.

There are, however, some uncertainties that affect the outlook for future sales growth in Healdsburg. The development of similar stores in Windsor is likely to erode some portion of Healdsburg's current market share. Yet, it is likely that Healdsburg's other retail stores have an opportunity to maintain a large share of the market for market area spending. In particular, the city's auto dealers should be able to remain competitive with "auto row" in Santa Rosa because their land and buildings are largely paid for, thereby effectively lowering their overhead. Even if the city's future market share is lower than in the past, other retail stores in Healdsburg should experience sales growth.

Estimate of Future Local-Serving Retail Sales

Based on the outlook for the various retail stores in Healdsburg, an order-of-magnitude forecast of future sales growth was prepared. This forecast was used to calculate a rough approximation of the demand for additional local-serving retail sales in the city over the next 15 to 20 years. The spending of visitors was not included.

The sales forecasts included the demand for convenience goods, comparison goods, and eating and drinking places. Other retail stores were not included, for several reasons. First, sales at certain other retail stores can change because the prices of the retail goods fluctuate due to external factors rather than because there are significantly more or fewer local customers for the goods. This is often the case for retail gasoline sales, and to a lesser extent for lumber sales. Second, the space requirements for other retail stores vary greatly, which makes it difficult to use sales estimates to predict the demand for additional space resulting from sales growth. For most other retail stores, lot area is usually several times larger than building area because much business is conducted outside (display areas for auto dealers, storage areas for building materials dealers, etc.). As a consequence, the relationship between sales volumes and space requirements is not as direct as for other kinds of retail establishments. Many other retail stores can accommodate a large increase in sales without needing additional space. Also, the very high capital and inventory costs of stores such as auto dealers and lumber companies can sometimes inhibit the entry of new firms when a local market is already well-served by strong retailers.

Visitor-Related Retail Activity

Healdsburg's future market demand for visitor-related commercial space is strongly tied to the city's ability to (1) promote the town as a visitor destination point, and (2) attract additional levels of highway travelers using Highway 101. This market demand is not easily projected since, although the potential for growth appears strong, there have been no data compiled on the number of visitors or visitor trends evidenced to date, nor have there been any significant efforts to promote tourism in the area.

Healdsburg has significant potential for increased destination tourist demand. The city currently has some tourism related to the surrounding wineries and the Russian River. Increased future demand could be realized if the planned hotel development on the west side of the Plaza occurs, and if Healdsburg is more aggressively marketed as either the center of Sonoma's wine region or as a Russian River resort community. Healdsburg has excellent highway access. It is surrounded by over 50 wineries between Sonoma and Cloverdale, and it is adjacent to the Russian River. The city also has a charming small town atmosphere. Furthermore, Healdsburg and the surrounding Sonoma County wine region could capture some of Napa Valley's current tourist market if Napa County becomes increasingly crowded or expensive.

Healdsburg has a more limited potential for Highway 101-related visitor demand. In general, highway travelers would create demand for commercial space primarily around highway intersections such as the Dry Creek Road - Highway 101 interchange. Demand would most likely be limited to purchases of gasoline, convenience goods, fast foods and recreation-related items. There is also some potential demand for the development of recreational vehicle parks or repair facilities.

Recently much attention has been paid to the potential for increased visitor activity in Healdsburg related to the opening of Lake Sonoma in May 1985. The Dry Creek Road-Highway 101 interchange is one of three major access

routes to the lake, the others being Kelly Road out of Cloverdale and Canyon Road near Geyserville.

However, Lake Sonoma traffic could have a relatively limited effect on Healdsburg. First, while Lake Sonoma officially opened for tourist use in 1985, facilities at the lake will be developed piecemeal over the next two decades as funding becomes available. Thus, the visitor activity that will occur would increase slowly over time. Second, only a portion of the traffic will use the Healdsburg exit at Dry Creek Road, since it is farther to the lake from the Healdsburg exit than from the Geyserville exit. Visitors trailering boats would especially be less likely to use the Healdsburg exit because of the condition of this route compared to the mostly freeway access of the more northerly exit. The Lake Sonoma Master Plan projects that 30 percent of auto traffic would enter the recreational area from the north on Kelly Road and that 70 percent would enter from the south at Canyon Road or Dry Creek Road. However, the plan projects that the primary southerly access would be Canyon Road, not Dry Creek Road. Finally, a small grocery store with fishing supplies and a recreational sales and repair shop is planned for the lake's marina area as part of Phase I. Once these facilities are developed and known to visitors, some visitors may choose to shop for recreational items and food at the lake rather than along the highway.

Over time, Lake Sonoma could contribute to an increase in destination travel to Healdsburg. To the extent the lake draws visitors to the area that might otherwise not have come, and exposes them to the charm of Healdsburg and the surrounding wine country, return visitor trips to Healdsburg could be generated by Lake Sonoma tourism.

Healdsburg shows considerable promise for attracting increasing numbers of visitors and visitor spending. In the near-term, destination visitors are more likely to have a significant effect on city retail sales, assuming the hotel and other Plaza-area improvements are realized. Over the longer-term, Lake Sonoma visitors will have a growing impact on the city's retail activity, although the effect will be limited primarily to the Dry Creek Road area.

In addition, there is a potential for increased retail activity in the near and long-term related to the promotion of Healdsburg's location on the Russian River. Healdsburg Memorial Beach is currently used by many boaters and rafters as a launching spot. Picnic areas could be further developed and barbecues or festivals organized to promote this location as a recreational area.

It is difficult to predict the level of future visitor activity in Healdsburg. In the near term, much depends on the city's success in attracting a hotel to the Plaza and promoting Healdsburg as an area that appeals to destination visitors. Even moderate levels of visitor activity, however, could contribute to a significant increase in retail sales and to improved business conditions that might attract a greater share of local residents to shop in the city's stores. Over the longer term, increased visitor activity could result in the development of additional hotels and bed and breakfast establishments, as well as additional retail sales.

Estimates of Additional Retail Development

Sales forecasts prepared by the City of Healdsburg Finance Department based on the projected growth of market population by category are shown in Table IV-2:

TABLE IV-2
PROJECTED MARKET POPULATION AND SALES
City of Healdsburg

	1980	Market 1985	Population 1990	2000	2005	Per Cap- ita Sales (1985 \$)	Projected 2005 Sales (1985 \$)
Apparel Stores ¹	4,076	4,419	8,175	10,200	12,150	248	3,013,200
General Merchandise ²	6,149	3,922	7,085	8,840	10,530	649	7,255,170
Drug Stores ³	10,313	19,176	22,576	25,976	29,375	140	4,112,500
Food Stores ⁴	14,370	22,377	29,177	35,977	42,777	546	23,356,242
Eating & Drinking Places ⁵	7,785	10,350	13,662	18,033	23,804	653	15,444,012
Home Furnishings & Appliances ⁶	6,381	3,064	9,592	11,968	14,256	253	3,606,768
Building & Farm Materials ⁷	18,566	23,060	29,860	36,660	43,460	441	19,195,860
Auto Dealers ⁸	20,704	27,361	37,561	47,761	57,961	1,054	61,090,894
Service Stations ⁹	11,931	15,294	28,194	41,094	53,994	537	28,994,778
Other Retail ¹⁰	5,598	6,371	8,502	9,828	12,636	665	8,402,940
Other ¹¹	17,071	15,094	17,000	19,000	21,000	1,756	57,876,000
	7,200	8,200	10,900	13,600	16,200	1,582	25,628,400

Footnotes:

¹ It is projected that Healdsburg will gain a 25 percent market share with the Swenson project and maintain it through 2005.

² General merchandise reflects the loss of Rosenberg's and the Montgomery Wards catalog sales outlet. It is projected that a new small department store will be added and a 65 percent market share will be restored and maintained.

- 3 It is projected that the existing drug stores will absorb the projected population growth plus 25 percent from the surrounding North County market.
- 4 It is projected that one food store will be added and that these stores will attract, due to population growth and tourism, 200 percent of the projected population growth.
- 5 Growth in this category has been driven by the diversity of businesses and is projected to grow proportionately.
- 6 It is projected that one major furniture and appliance store will be added and that the prior 88 percent local market share will be restored.
- 7 Healdsburg dominates the North County building and farm materials market. This is projected to grow at 200 percent of the local population growth.
- 8 Healdsburg's three auto dealerships and Opperman Trucking are competitive and aggressive merchandisers who will be joined by a new dealership offering imported brands, or one or more will expand into this area. It is projected that they will maintain a market equal to 300 percent of local population growth.
- 9 Service stations will benefit from increased traffic volumes on U.S. 101, local tourism and population growth. It is projected that their market will grow at 400 percent of local population growth.
- 10 Other retail will maintain its existing 78 percent market share.
- 11 Other includes retail sales generated by Boise Cascade and as a result will reflect very modest growth.

Approximately 10 percent of the City retail sales tax revenue are apportioned receipts from direct-sales firms, e.g. Amway. The Wall Street Journal and others project that this retail category will double in its market share, generating by 2005 an additional \$25,628,000 in retail sales.

Source: City of Healdsburg Finance Department, September 1986.

The City projects a resulting growth in retail sales from \$132 million (direct and apportioned) to \$258 million in 1985 constant dollars.

Table IV-3 shows projected retail sales growth for those categories in which 75 percent or more of the growth will require added floor area.

TABLE IV-3

Category 1
PROJECTED RETAIL SALES - 2005

	<u>New Retail Sales</u>
Apparel Stores	\$ 1,917,288
General Merchandise	4,552,912
Eating & Drinking	8,785,462
Home Furnishings & Appliances	2,831,576
Other Retail	<u>16,276,936</u>
Total:	\$34,364,174
75% not absorbed	25,773,130

Source: City of Healdsburg Finance Department, September 1986.

Additionally, there are a number of categories of retail sales where a significant volume, up to 75 percent, will be absorbed by existing outlets. These are shown in Table IV-4.

TABLE IV-4

Category 2
PROJECTED RETAIL SALES - 2005

	<u>New Retail Sales</u>
Food Stores	\$10,592,400
Auto Dealerships	32,252,400
Service Stations	<u>20,781,900</u>
Total:	\$63,626,700
25% not absorbed	\$15,906,667

Source: City of Healdsburg Finance Department, September 1986.

It is projected that all the growth in drug store retail sales will be absorbed due to the existence of two super drug stores, Payless and Thrifty, as well as several aggressive local druggists.

The resulting demand for new floor area, using \$180 per square foot, for Category 1 (Apparel, Eating, etc.) is 143,184 square feet. It is projected

that approximately half of this requirement will be satisfied from existing vacancies (approximately 30,000 square feet) and the Swenson West Plaza project (soon to be under construction). The Category 2 businesses (Food Stores, Auto Dealerships, etc.) will result in new construction of approximately 88,300 square feet.

Future Demand for Office Space

Healdsburg has historically had very limited demand for office space. With the exception of the March Avenue medical office complex, the demand has largely been met by spaces under 5,000 square feet in second story levels and converted homes skirting the downtown area.

One reason for the limited demand for office space is the fact that no new office building other than the March Avenue medical offices have been constructed in the last 20 years. Three properties (Gobbie Building, Old Rosenberg's, now Jordan Oil, and the Old BMA building) have been substantially rehabilitated and are fully occupied. The Swenson West Plaza project will add approximately 40,000 square feet of new office space. The owner's aggressive leasing efforts will fill these spaces, providing a considerable boost to the downtown retail base.

There will probably be very limited demand for office space in the future. Santa Rosa has firmly established itself as the county's financial, cultural, governmental, and services center. Firms desiring higher visibility, accessibility to other companies and larger spaces would more than likely select Santa Rosa over Healdsburg as an office location.

Demand for office space in Healdsburg would come from firms with very different characteristics from those described above. These firms would be relatively small space users providing business and professional services to local residents, companies partial to a small town atmosphere, and firms related to the city's viticulture, building materials and geothermal industries. Healdsburg would also be attractive to those small firms looking for relatively inexpensive space. Healdsburg office space currently (May 1985) rents at about 40¢-\$1.20 per square foot compared to a Santa Rosa mid-range of about 80¢-\$1.10.

Location of Retail and Office Activity

The downtown area will be the focus of much of the increase in retail activity related to spending by visitors and local residents on comparison goods and at eating and drinking places. This could occur if the city is successful in attracting a hotel to the Plaza and assisting in the redevelopment of the greater Plaza area. Over time, specialty stores and restaurants are likely to be the primary tenants of ground floor space on the Plaza and on nearby streets leading from the Plaza.

Increased demand for a limited amount of prime ground floor space adjacent to the Plaza will push up rents there over time. Lower volume retail businesses seeking a downtown location will occupy space a block or two away from the Plaza. Office tenants will occupy upper floors of Plaza buildings or locate away from the immediate Plaza area.

In general, the downtown area is likely to see a concentration of specialty stores and restaurants around the Plaza, a mix of local-serving retail stores and offices on the streets just removed from the Plaza, and offices and convenience goods stores on the periphery of the downtown.

Future shopping activity for convenience goods is likely to be concentrated in its present locations: the periphery of the downtown and the Dry Creek Road - Healdsburg Avenue area. These locations are adequate to accommodate future growth in convenience goods sales.

Office demand will be focused on the greater downtown area, Healdsburg Avenue, and the Dry Creek Road area. There will probably be continued demand for the conversion of homes adjacent to downtown into small offices.

Highway-related commercial businesses (such as motels, service stations, fast food restaurants, and automobile/marine services) are likely to locate adjacent to highway interchanges in order to maximize their visibility and accessibility to travelers. The Dry Creek Road area will be the preferred location for the future growth in these businesses.

Considerations for Future Commercial Land Use Policy

One of the primary characteristics of Healdsburg commercial space is that the space is currently dispersed among several commercial nodes: the greater Plaza area, the Mitchell Center, the Vineyard Plaza Shopping Center, Healdsburg Avenue, and the Dry Creek Shopping Center. In order to ensure a viable commercial community in the future, the City might consider concentrating its commercial areas and, in the downtown area, working to interlock existing nodes, rather than allowing more dispersed development.

This is especially important for Healdsburg's downtown. New development has extended the downtown to the west away from the Plaza. Proposals have been made to further encourage commercial development on the western edge of the downtown. This threatens to change the character of downtown and diminish its strongest assets.

Currently, Healdsburg is distinguished from many other Sonoma County communities by its small, historically charming downtown. It is a walkable and attractive downtown, with a scale that appears to visitors for the same reasons that it is appreciated by local residents.

Although the future holds the potential for increased retail activity from the spending of visitors and residents, the outlook for growth is not so strong as to allow for the continued dispersion of downtown commercial development without affecting the viability of Plaza-area merchants. To maximize the downtown's appeal to visitors and to promote the vitality of its existing retail stores, future retail activity should be concentrated east of Foss Creek. The periphery commercial areas to the west of Foss Creek would be better developed with offices or other commercial uses not likely to compete with the retail stores in the vicinity of the Plaza.

The commercial activity that could be generated by the combined effect of future visitors and the residential development proposed for the northern areas of Healdsburg is likely to be sufficient to support additional

convenience retail development in the vicinity of Dry Creek Road. This could perhaps include a small shopping center with a supermarket as the anchor tenant. The impact of such a shopping center on existing convenience retailers in the city is likely to be minimal if Lake Sonoma is attracting a substantial volume of visitors and the development of future housing is well underway. In absence of these conditions, however, a new convenience shopping center could potentially take away sales from existing merchants.

Industrial Development

Market Demand for Industrial Space

Healdsburg currently has a diversified industrial base consisting of viticulture-related industries and support services, building materials suppliers (including lumber companies and an aggregate mining operation), a semiconductor company (until it closed down in June 1985), geothermal-related industries, and small space users such as light manufacturers and incubator electronics firms. Healdsburg's location (70 miles north of San Francisco) has a strong effect on the city's mix of industrial activity. The area's soil and climatic conditions support the viticulture-related industries. The city's proximity to major population centers as well as to natural resources encourages its building materials industries. Furthermore, the city is located near the geysers development which is used for power production by such major power producers and distributors as Union Oil Company and PG&E.

Healdsburg's industrial areas generally constitute the city's western edge. Most industrial parcels are located in three concentrations between Highway 101 and the railroad right-of-way. In the north, industrial activity extends from Dry Creek Road to the city's northern limits. Close to Dry Creek Road is a mix of small industrial and service businesses. Much of this area is vacant or underutilized. Farther to the north are the large operations of Simi Winery and Boise Cascade. Industrial development also is concentrated west and south of Healdsburg Avenue, between Grant Street and the Russian River. This is the city's longest-established industrial area and most intensively developed. It is also an area of mixed use, with many non-industrial land uses. The Old Redwood Highway area is Healdsburg's third major industrial area. Most of this area is presently in agricultural use. Notable exceptions include the aggregate operations of Basalt and several winery and wood products companies near Grant Avenue.

Significant recent activity has occurred with the approval of the Foss Creek Place Industrial Office Park and the initiation of infrastructure construction; completion of a 20,000 square foot new building in the Moore Lane Industrial Park along with completion of infrastructure; approval of a buildout plan, including the extension of Vine (Grove) Street in the Sauers Industrial Park; sales of industrial revenue bonds for Capital Lumber, commencement of construction of a 20,000 square foot facility and some areawide infrastructure (electricity and drainage) in the Old Redwood Highway area.

One of the major issues surrounding the question of future demand for industrial land in Healdsburg centers around the type and amount of demand that Healdsburg can expect, especially with respect to competitive

locations. How can Healdsburg hope to compete with other Sonoma County locations (e.g. Santa Rosa, Rohnert Park and Petaluma) for light industrial activity? Is there significant demand for space from companies that do not necessarily desire to locate closer to major business centers and labor markets? Could Healdsburg provide space at costs significantly lower than its competitors to compensate for its relatively northerly location? Finally, what is Healdsburg's potential for attracting additional agricultural and other industries?

Increasingly aggressive marketing and the residential preferences of CEOs or plant managers play key roles in industrial siting. Other considerations are labor costs (Healdsburg is largely non-union) and availability. Third is the comparative cost of rent; current indications are that existing industrial park owners have recently adopted a more competitive posture. Last, recent increases in utility development fees in Santa Rosa and other South County cities has given Healdsburg a competitive edge for any industry requiring significant sewer capacity.

Type and Amount of Industrial Demand

Potential for Demand for Light Industrial Activity

While many Healdsburg industries have localized operations, the city competes in an industrial market area that is countywide. There is substantial competition for industrial tenants in Sonoma County. Over two million square feet of industrial development has been planned for the county. Recent studies have identified over 2,000 acres of vacant county land either in industrial parks or in groups of undeveloped contiguous parcels larger than 35 acres (Wagstaff and Brady, July 1984).

The cities of Santa Rosa, Rohnert Park, Petaluma, and their adjacent lands, capture the large majority of industrial growth in Sonoma County. Some generalizations can be made as to where certain kinds of industrial activity are inclined to locate.

Santa Rosa has generally maintained its prominence as the major cultural, government, financial, and industrial center of the region. It continues to gather the largest share of industrial activity. It offers more sites for industrial expansion and location than the other major cities. It has the largest supply of well-planned and more expensive industrial park space. It also leads in the number of sites suitable for product assembly and warehousing and distribution.

Rohnert Park has sought to make itself attractive to research and development and large office operations. In recent years it has acquired both a major Hewlett-Packard facility and the regional headquarters for the State Farm Insurance Company. While its remaining industrial park area is primarily attracting a mix of smaller firms, Rohnert Park may see an upgrading trend in those parks. Its locational advantages include new residential developments, well-planned recreational facilities and Sonoma State University.

Petaluma enjoys some advantages as a distribution center. Its comparatively low land values and proximity to the Bay Area make it attractive to certain large operations such as the recent developments of Harcourt, Brace and Jovanovich and the Fireman's Fund. In addition, it is well-suited for high tech assembly firms because of both reasonable land values and proximity to other Bay Area high tech firms.

Other areas north of Santa Rosa are also attractive to prospective firms. The large amount of industrial acreage near Sonoma County Airport is being prepared for active marketing targeted at a mix of business park and heavy industrial uses. Windsor is beginning to attract new residential, shopping, and employment developments. While Windsor is presently a small center of activity, a large amount of development is expected there in the future.

Based on an analysis of Healdsburg's market strengths in comparison to competitive locations, it appears that Healdsburg could best compete for the following kinds of users: small, entrepreneurial research and development firms; localized warehousing and distribution activities; small manufacturers; and ancillary uses such as industrial suppliers and related services. One of the primary reasons that Healdsburg could expect these kinds of users is its relatively northerly location in relationship to its competitors. Because Healdsburg is farther north than its major competitors, companies that choose to locate in Healdsburg would more than likely not require proximity to major business centers and labor markets. Examples of these kinds of industries are entrepreneurs with computer terminals linked to other Bay Area locations and warehouses and distributors that serviced the local area. Also, under current industrial parcelization patterns, firms attracted to Healdsburg would have to be relatively small space users. Finally, in light of Healdsburg's charming small town atmosphere, companies interested in the area would more than likely have a preference for semi-rural environments providing urban services. Small, entrepreneurial firms can easily locate their operations on the basis of such preferences.

In comparison, Santa Rosa is the preferred location for firms that require a large site and are willing to pay for Santa Rosa's well-planned, more expensive industrial settings and accessibility to major business areas and labor markets. Petaluma and Rohnert Park, with relatively low land prices compared to Santa Rosa, and more Bay Area accessibility than Healdsburg, would be the preferred locations for major distributors and assembly plants serving the Bay Area. The Sonoma County Airport industrial area, with about 500 acres adjacent to the airport, is the most desirable location for firms that prefer to be near an airport and that require large sites.

There is a large amount of land designated for industrial development countywide. More than likely, there will not be enough demand for industrial space over the next 15 to 20 years to absorb all of the county's vacant industrial land. Santa Rosa, Rohnert Park, Petaluma, and their adjacent lands, have historically captured the large majority of industrial growth in the county. Those areas will continue to be more competitive for industrial space than Healdsburg primarily due to their relatively southerly locations and large parcels.

Potential Demand in Agriculture and Other Industries

Agricultural Industries

Healdsburg appears to have potential for some additional demand for industrial space from agricultural industries, although not necessarily a significant amount.

First, there is not great potential for additional viticulture production in the area. It appears unlikely that the area's vineyard acreage will increase by a significant amount. According to a local industry source (Robert Sisson, Viticulturist and County Director, U.C. Extension Farm Advisor for Sonoma County, personal communication, March 26, 1985), without putting any more land into vineyard production, there is a potential for a modest 20 percent production increase in the county (from 100,000 tons of grapes annually to 120,000 tons).

The high cost of winery-related wastewater disposal and electric extensions may drive some wineries into town because of the high cost of rural development and the demand for vineyard land.

The existing vineyards in the area appear financially sound enough to withstand short term economic downturns in the wine industry. As a consequence, local vineyard activity should remain strong with a moderate, but not large, potential for growth.

Second, although Healdsburg has some agriculture support businesses, other locations are also competitive for agricultural activity. The city currently has an irrigation systems and equipment company, a wine broker, several wine consultants, about ten wine equipment and supplies manufacturers, and an agricultural chemicals supplier. Approximately one-half of the area's vineyards use Healdsburg accountants and lawyers (Lindsey Wurlitzer, North Bay Production Credit Association, personal communication, March 25, 1985). However, other Sonoma and Napa County communities have similar support industries. Therefore, if additional wine support industries are generated by increased grape production, it can not necessarily be assumed they will choose to locate in Healdsburg.

Third, other communities have established markets for agricultural industries that Healdsburg has not developed. For example, unlike several nearby communities, Healdsburg does not have a farm equipment sales company. This suggests that while Healdsburg may be a preferred location for some types of agricultural activities, the city should not expect to attract a full range of agricultural support businesses. Some agricultural businesses find it more competitive to be in other locations.

Lumber-related Industries

The prospects for growth in the lumber-related industries are mixed. The city has several retail and wholesale lumber companies. A couple of the smaller companies that primarily service the local economy are doing particularly well and, in fact, have plans for expansion. In addition, a company with a new recutting mill has been approved on a 9.5 acre parcel on Old Redwood Highway north of Grant Avenue.

There have been concerns, however, regarding the future of the Boise Cascade operations in Healdsburg. The operation receives precut lumber from mills in Northern California, Oregon, Washington and Canada, and then recuts and repackages the wood in order to furnish lumber, plywood, and prefabricated roof trusses to the San Francisco Bay Area. Located between the natural resources and the housing market, Healdsburg appears to offer Boise Cascade locational advantages. Yet, it is difficult to predict the operational strategies of a large national company balancing the needs and opportunities of its various enterprises.

Aggregate Products

The prospect for the continued production of aggregate products in Healdsburg looks promising. The operator in the area, Basalt Rock Company, specializes in the production of river rock, asphaltic concrete and ready-mix concrete. Its aggregate reserves along the Russian River and to the south of town are apparently adequate for future production. The company is currently seeking to mine an additional 50 acres of its property now used for vineyards and orchards south of the Healdsburg Planning Area. Therefore, even if Basalt should decide not to continue its operations, it is conceivable that another company could buy its equipment and reserves and continue the operation.

Semiconductor Industry

Until it closed in June 1985, Fairchild Semiconductor in Healdsburg produced polished silicon wafers for other Fairchild operations in Marin and Santa Clara counties, Washington, and in the eastern United States. The reason for the location of the Fairchild operation in Healdsburg in 1973 is unclear, although according to a company spokesperson the move was at least partially related to the availability of inexpensive power and the presence of existing buildings meeting the company's needs (Kathy Johnson, Fairchild Semiconductor industrial relations, personal communication, March 21, 1985).

After a temporary shut-down early in 1985, Fairchild announced in May 1985 its decision to close its Healdsburg plant permanently, putting nearly 200 local employees out of work. Since the announcement, Fairchild and the City of Healdsburg have been actively seeking a buyer for the facility. The building is overpriced at the present time and may be vacant for some time to come.

Geothermal Industry

The geothermal industry appears to offer some potential for growth. The Geysers developments located in the hills to the north of Healdsburg are used for power production. Union Oil Company, the Northern California Power Agency, PG&E, and the Sacramento Municipal Utility District (SMUD) are among the major power producers and distributors involved in geothermal development at the Geysers. Several new plants are now in the construction and planning phases, and methods replenishing the steam reservoir so as to prolong the steamfield's life are being explored. Therefore, it is possible that additional geyser-related businesses, such as administrative, staging and storage operations, will locate in Healdsburg.

Estimate of Future Industrial Space Demand

A review of the market for industrial development indicates that Healdsburg could expect a demand of roughly 40,000 square feet annually from the types of industries it has historically attracted (e.g. agricultural, lumber-related, and small space users). However, demand for industrial space could be higher in certain, as yet unrealized, market sectors.

What has been largely underemphasized to date is Healdsburg's potential for attracting small space users, particularly entrepreneurs, and high tech activity that would locate in the city mainly because of a preference for the lifestyle of the area. This potential could increase as efforts for promoting the city's amenities increases. Healdsburg could be an attractive location for firms that desire both a rural environment and urban conveniences and amenities, close to the county's business center in Santa Rosa and within a two hour drive of San Francisco.

This type of growth is difficult to predict, since it is more dependent on the lifestyle preferences of business owners and managers than on the more traditional criteria of locating industries near labor markets, suppliers, or customers. But similar kinds of development have occurred elsewhere on the periphery of urbanized areas. In California, examples include successful high tech businesses in the Sierra foothill communities and other semi-rural communities near large metropolitan areas. Healdsburg would seem to offer similar advantages for high tech firms or other small industrial operations which locate primarily on the basis of employer lifestyle preferences. Yet it is not clear to what extent Healdsburg could attract a sizable amount of such industrial growth.

Adequacy of Industrial Land Supply

In light of the short-term projections above, Healdsburg certainly has an adequate amount of vacant land zoned for industrial use. There are presently about 130+ acres of vacant or underutilized industrially zoned land within the city limits. At the projected annual absorption rate of 40,000 square feet, and assuming standard building floor area ratios (square feet of building floor area as a percentage of the site's area) of 20 to 30 percent, Healdsburg has an amount of industrial land roughly equal to what is likely to be absorbed over the next 15 years. In some cases, industries like lumber mills with large outside storage needs may have floor area ratios of less than ten percent.

Short-term Opportunities

In the short-term, most of the city's new industrial activity is likely to be in the established industrial areas between West Grant Street, West North and in the vicinity of Dry Creek Road. Several industrial development projects already have been proposed for these areas.

Two projects are located in southwestern Healdsburg in the area roughly bound by Highway 101 to the west, Grant Street to the north, the Northwestern Pacific Railroad tracks to the east, and North Street to the south. One project, Foss Creek Place, is a proposed mixed-use industrial park on 19 acres (13 acres of which are presently being annexed to the

City). Possible tenants for the project include a local computer accessory and industrial robotics design firm, a health spa, a preschool and an incubator electronics firm. The second project, the Moore Land Industrial Park, is already approved and is planned for an ultimate buildout of about 200,000 square feet on 9.5 acres. The park will be marketed to more traditional Healdsburg tenants such as light manufacturers, service commercial businesses, and incubator companies. Construction will be largely metal buildings.

Based on proposed build-out schedules and standard industrial floor area ratios, these two projects alone could satisfy the demand for industrial space projected for the next 15 to 20 years (at 20,000 square feet a year). However, it is possible that these developments either may not achieve their full planned occupancy or necessarily lease their space to industrial tenants (e.g., the health spa proposed for Foss Creek Place). Therefore, other additional industrial space could successfully obtain tenants even if both of these projects build out over the next 15 to 20 years.

Other small sites south of Grant Street may offer some limited industrial development opportunities. One potential site is a 3.8-acre parcel owned by the Redevelopment Agency on the west side of the railroad tracks at West North Street. This parcel, however, is also being considered for commercial development.

The industrial area in the vicinity of Dry Creek Road is another area of the city likely to experience short term demand for industrial space. Adequate land exists for a range of industrial operations, including those businesses that require more site area than would be available on many parcels south of Grant Street (such as for storage and lay down areas, fleet parking, etc.).

Long-Term Opportunities

Other industrial areas of the city are likely to experience little development pressure over the next decade or longer. There are a number of obstacles to development in these areas, including insufficient services and incompatible land use mix. These problems would need to be overcome and market demand for industrial space in Healdsburg would need to increase above current expectations before new development is likely to be attracted to these areas.

Old Redwood Highway

The industrial land along Old Redwood Highway east of the Russian River is the largest vacant industrial zone within the city, approximately 80 acres. There is enough contiguous vacant land in this area to develop a moderate-size business park or to attract large-space users.

The major obstacle to development in this area is infrastructure. The area is currently unserved by sewer and water, and it would be relatively expensive to provide the area with utilities since the utilities would have to be extended across the Russian River.

The asking prices for land in this area are about \$1.10-1.50 per square foot. These prices are at the upper end of the range for unimproved land in the county. The required capital improvements and high asking prices for land (that are not significantly lower than other comparable locations in the county) may delay development of this area for years even if industrial demand is more promising than projected.

In the short-term, this area would probably not compete well with other county areas for large-space uses. Those areas are either better situated (i.e. closer to major business centers and labor markets) or can offer large contiguous parcels that could be serviced at a lower cost. In order to make this industrial land competitively priced over the short-term, Healdsburg would probably need to subsidize the provision of services. Over the longer-term the site could become more competitive for the large-space users as existing available space in other locations diminishes.

South of the Railroad Tracks

Another significant industrial area is the land to the south of the Northwestern Pacific Railroad tracks and to the north of Healdsburg Avenue. This area could offer a potential for redevelopment and intensification of current land uses at some point in the future. Existing development includes a mini-storage and lumber operation. The area could be an appropriate location for future industrial development if demand were sufficient. The area faces some potential problems in terms of incompatible land uses because of the adjacent housing.

Over the short-term, however, this area is not likely to experience significant demand in light of the competition provided by the other industrial developments in Healdsburg. The area is currently a patch-work of different types of uses under various ownerships. For a significant amount of development, sewer and water improvements in the area would be necessary. In order to make this area competitive in the short-run, the City would need either to offer development incentives or subsidize its redevelopment and develop a unified development scheme for the area.

As with the southern industrial area, over the long-run this area could become more competitive as existing available space in other locations diminishes.

North of Dry Creek Road

The industrial area bordering the east side of Highway 101 to the north of Dry Creek Road has some potential for new development and redevelopment. In light of the concerns regarding the future of Boise Cascade, it may be appropriate to consider the reuse potential of the Boise Cascade site, although there is no indication that Boise Cascade will be closing its operation here.

If this area is eventually available for redevelopment, it would probably be a number of years away. In 15 or 20 years, Healdsburg could be more competitive with other county locations for large space users. The Boise Cascade site, however, would probably be in direct competition for business park tenants with the Old Redwood Highway Area. It is difficult to predict

whether there would be enough demand for industrial land in the long-term future to fill both areas. It is also difficult to foresee which area might be viewed as more desirable by the majority of firms who would be interested in locating in Healdsburg. While the southern industrial land might be relatively high-priced because of the cost of providing utilities to the area, the Boise Cascade site might require grading and additional utilities or other kinds of improvements to be suitable for a modern multi-user industrial area. Development subsidies provided to either of these two areas could lower the cost of development and thereby make them more competitive in the regional industrial land market.

FISCAL CONSIDERATIONS

Healdsburg provides a wide range of city services to its citizens. In addition to typical municipal service functions such as police and fire protection and street maintenance, the City operates its own water, sewer, and electric utilities. Healdsburg also operates a small airport and has an active redevelopment agency.

The City's municipal services can be grouped into three major categories: general government activities, enterprise activities, and the redevelopment agency. These services perform different functions and are supported by different sources of revenues. Their characteristics are summarized below.

General Government

Healdsburg's general government activities are supported by the general fund, various special revenue funds, and the capital projects fund.

General Fund

The general fund includes most of the revenues and expenditures typically associated with the provision of municipal services. The revenues and expenditures that made up the general fund in FY 84-85 are shown in Table IV-5 and IV-6. Included in Table IV-5 are federal revenue sharing funds and the general government services financed with revenue sharing. In 1984-85, general fund revenues and expenditures were about \$2.9 million.

Revenues from the sales tax and the property tax make up approximately 59 percent of the City's general fund revenues. The City's single largest source of general fund revenue is the retail sales tax. Sales taxes accounted for about 45 percent of general fund revenues in 1984-85. Property taxes, the second largest revenue source, represented 14 percent of total revenues in 1984-85.

TABLE IV-5

GENERAL FUND REVENUES
City of Healdsburg
1985 and 2005
Millions of Dollars (1985 Current Dollars)

	<u>1985</u>	<u>2005</u>
Property tax	0.4	0.5 ¹
Sales tax	1.3	2.6 ²
Business license tax	0.1	0.2 ³
Transient occupancy tax	0.1	0.4 ⁴
Other taxes	0.1	0.2
Service charges	0.1	0.2
Subvention	0.2	0.4
Fees & Permits	0.2	0.3
Investment income	0.1	0.1
Other, incl. transfers	<u>0.3</u>	<u>0.2</u>
	2.9	5.1

¹ Property tax growth in annexed areas is limited to the existing agreement with Sonoma County.

² Reflects projected growth in retail sales.

³ Base is tied to gross receipts.

⁴ Reflects the projected transient occupancy tax base associated with the Willow Creek Inn; the addition of four bed and breakfast inns; and the increased occupancy level forecast by Dry Creek Inn.

Source: City of Healdsburg Finance Department, 1986

TABLE IV-6
GENERAL FUND EXPENDITURES
City of Healdsburg
1985 and 2005
Millions of Dollars (1985 Current Dollars)

	<u>1985</u>	<u>2005</u>
General Government	0.2	0.3
Public Safety	1.8	2.9 ¹
Recreation/Leisure	0.4	0.9 ²
Community Development	0.2	0.2
Streets & Roads	0.3	0.4
Debt Service	—	<u>0.4³</u>
	2.9	5.1

¹ Projected expenditures include staffing one additional fire station and a 60 percent increase in police staffing.

² The proposed increase in park acreage will more than double recreation/leisure service expenditures.

³ Debt service expenditures not added to the property tax levy for a new police station. A new North Area fire station will create a debt service at up to \$400,000 per year, depending on the cost of borrowing.

Source: City of Healdsburg Finance Department, 1986

Among the other sources, revenues from state and federal subventions and from local taxes other than the property tax and sales tax are the most important. State and federal subvention revenues made up just over seven percent of general fund revenues in 1984-85. Federal revenue sharing represented nearly two-thirds of all state and federal subventions. Other local taxes include the business license tax, transient occupancy tax (hotel tax), franchise tax, and property transfer tax. Together, these taxes accounted for just over 10 percent of general fund revenues in 1984-85.

Healdsburg's general fund supports the expenditures for many City service functions. These consist of general government (overall city management and administration), public safety (police and fire protection), cultural and recreational and leisure activities (including park maintenance, recreation programs, and the municipal pool), community development (planning, building inspection, and engineering), and streets and roads (street maintenance and sweeping). Also included in the general fund are the expenditures for minor capital outlays (various small equipment) and miscellaneous items.

The City spends the largest portion of its general fund for public safety services. Approximately 62 percent of the total general fund expenditures in 1984-85 were for police and fire protection. The police department accounted for about two-thirds of all spending for public safety.

Recreation and leisure services constitute the next largest category of general fund spending. About 14 percent of the general fund expenditures in 1983-84 went to support these services. About half of the spending was for recreation programs and the maintenance of public parks.

General government, community development, and streets and roads account for roughly equal shares of the City's general fund spending. In 1984-85, these categories together represented about seven percent of all general fund expenditures.

The projected balance of revenues and expenses needs to be evaluated with caution because expenditures may expand faster than revenues, causing strain on city resources. Every effort should be made to seek voter approval of bonds to finance police and fire facilities.

Special Revenue Funds

The City collects many revenues that have certain restrictions on their use. These include revenues from the State that must be spent on the maintenance and construction of city streets, transit operations, or the provision of pedestrian and bike paths. They also include revenues from fees imposed on developers for future improvements to the City's parks and storm drain system.

Once collected, these special revenues are transferred to other City accounts to be spent for appropriate purposes. Most of the revenues are used for various capital improvement projects.

Capital Projects Fund

The capital projects fund consists of the revenues and expenditures associated with the acquisition and construction of public capital facilities, except those undertaken by the City's enterprise activities. In 1984-85, the expenditures of the capital projects fund totaled \$2.6 million. About 85 percent of this spending was for a major sewer project. Typically, street improvements account for the largest expenditures from the capital projects fund.

The revenues that support the spending of the capital projects fund come from a variety of sources. Developer fees have traditionally been a major source. Another important source is the revenue the City transfers from the general fund and special revenue funds to the capital projects fund. Federal and state grants can also contribute significantly to the revenues available for certain capital improvements.

Enterprise Activities

Healdsburg's enterprise services include its water, sewer, and electric systems, bus service, and airport. The City is unusual in having its own electric system. Relatively few California cities own and operate electric systems for their citizens.

Enterprise activities are those city services that are self-supported by user charges. Enterprise functions provide benefits that can be measured (the amount of water consumed by each household, for example) and for which charges can be set to recover the cost of providing the service.

The expenses of the City's enterprise activities include the costs of operating and maintaining the utility systems, billing, debt financing, and depreciation (to account for the eventual need to replace components of the systems). In 1984-85, the operating expenses of all of Healdsburg's enterprise activities totaled about \$5.5 million.

The City includes as a cost of operating the enterprise services the time spent by general City staff on enterprise functions. For example, the city manager's efforts related to enterprise services are charged to the enterprise accounts rather than to the general fund. Thus, a portion of the manager's salary comes from the budget of the enterprise services. This frees the general fund from the need to pay the entire expense of certain City staff and gives the City more flexibility in its funding of overall city administration.

Virtually all revenues to support the expenses of the enterprise activities come from charges levied on the users of the services. In 1984-85, the revenues from service charges totaled about \$5.7 million.

The electric service is the City's single largest enterprise fund. It represents about 85 percent of all expenses and revenues associated with enterprise activities.

The accounts of the individual enterprise activities are separate. The expenses of each service are expected to be paid for by user charges specific to that service. For most enterprise activities, the charges are set by the City Council to recover the full cost of the services provided.

The electric and sewer systems collect revenues from user charges that are sufficient to cover all expenses for these two services. The water system, however, collected less revenue in 1984-85 than was needed to meet the entire cost of water service. The deficit was made up from the retained earnings of previous years, but it is possible an increase in the user charge for water may be necessary to bring revenues in line with costs.

Healdsburg's bus system has never been expected to collect fares that pay the full cost of transit service. Like transit systems in other communities, a large share of operating revenues for bus services in Healdsburg comes from a portion of the sales tax and other sources of state aid. Revenue transfers from the City's special revenue fund make up the difference between the expenses for the bus service and the money collected from fares. Recently, much attention has been focused on the need for

greater ridership to boost the total revenues from fares. Fare box revenues have dropped well below 10 percent of total operating costs. Without additional ridership, the City may need to consider raising the present bus fares so that fare revenues are high enough to continue to qualify for state transit assistance (Healdsburg Tribune, "No Fare Increase for City Busses [Sic]," March 27, 1985).

The charges imposed on users of the airport are not sufficient to pay the full cost of operating the airport. The City makes up the difference with other revenues. The need for an operating subsidy from other city funds has been diminished in recent years as the airport approaches self-sufficiency.

Redevelopment Agency

The City established a redevelopment agency in 1981 to assist in the economic revitalization of Healdsburg. The agency, composed of the City Council, focuses its efforts on supporting the growth of commercial and industrial activity and the provision of low- and moderate-income housing. In recent years, the agency has assisted the development of the Vineyard Plaza shopping center and the Dry Creek Inn and has participated in the construction of various drainage and street improvements in the downtown area. Current projects include assisting with the development of a hotel on the west side of the Plaza, providing additional parking in the downtown, and supporting the construction of senior housing.

In 1984-85, the budget of the redevelopment agency was about \$3.8 million; this includes a portion of the salaries of general City staff based on the share of their time devoted to the administration of redevelopment functions along with the use of bond proceeds for the West Plaza project. Like the situation with enterprise activities, the redevelopment agency is charged for efforts of certain staff, relieving the general fund of a portion of the cost of overall city administration.

The agency's activities are restricted by law to a defined redevelopment project area. This area, called the Sotoyome Project Area, includes about 60 percent of the incorporated City. The portions of Healdsburg excluded from the redevelopment project area are the newer residential neighborhoods on the eastern and northern edges of the city.

The redevelopment agency can undertake a wide range of activities in support of economic development and the provision of low- and moderate-income housing. These include acquiring and selling property; constructing public capital improvements; providing low-interest, tax-exempt financing for various public and private projects; and providing low-interest loans to developers. All of these are intended to create an incentive to private development that would not occur without the assistance of the redevelopment agency.

The activities of the agency are funded from a variety of sources. The most important is revenue from property tax increments. The property tax increment is the increase in property tax revenues that comes from the growth in the assessed value of property in the redevelopment project area after the adoption of the redevelopment plan. Before the adoption of the redevelopment plan, the property taxes generated from the area are divided

among many taxing jurisdictions. Redevelopment law allows the growth in property taxes after an established date to accrue solely to the redevelopment agency. The other taxing jurisdictions that formerly received all the property taxes from the project area will, once the redevelopment plan is adopted, share only in the taxes generated by the assessed value of property as it existed on the adoption date. In effect, the tax base is "frozen" for all taxing jurisdictions except the redevelopment agency, which receives 100 percent of the taxes from future growth in assessed value. The allocation of the property tax increment to the redevelopment agency continues for the term of the redevelopment project, as specified in the redevelopment plan.

The disbursement of the property tax increment to Healdsburg's redevelopment agency differs slightly from the traditional method of allocating the increment. Based on a 1984 agreement with the County of Sonoma, Healdsburg shares a portion of its increment above a certain amount with the County's general fund and library fund. For tax increments in excess of \$625,000 a year, these two county funds receive 80 percent of the tax revenues they would have received if there were no provision for tax increments to the redevelopment agency. This is equivalent to about 26 percent of the total tax increment above \$625,000 a year. No other taxing jurisdictions receive a share of the tax increments generated in the project area.

This includes Healdsburg's general fund. By law, the property tax increment from the redevelopment area cannot be used as a revenue source for the general fund. In the project area, the only property taxes available to the City to help pay for general fund services come from the City's portion of the taxes generated by the frozen base assessed value. The general fund does not share in the additional property taxes from increases in project area assessed values above this base.

The redevelopment agency's property tax increment is used to directly finance certain of the agency's activities and to support the repayment of tax-exempt bonds used for various capital improvements.

Fiscal Issues in Planning for Future Growth

Growth will bring additional revenues to the City and also necessitate new expenditures for municipal services. In addressing its future through the revision of the General Plan, Healdsburg will need to consider how growth could affect the fiscal condition of the City.

A number of important issues that will bear on the City's future fiscal health are summarized below. They include issues affecting the general fund, enterprise services, capital improvements and differences among land uses and the location of development.

General Fund

The property tax and the sales tax are the two most important revenue sources for the general fund. Their growth will have the greatest effect on the City's ability to maintain or improve the quality of general fund services.

Property Tax

The growth of property tax revenue is largely dependent on new development and the re-selling of existing property. Proposition 13 limited the increase in the assessed value of property (which determines the amount of property tax) to 2 percent a year for property that does not change ownership. An annual 2 percent change is likely to be less than the real increase in property values over time, and less than the general inflation rate. As a consequence, the amount of property tax revenues collected from existing development that does not change ownership will grow very slowly, and at a rate lower than the average long-term inflation rate. New development and property resales, however, are taxed at their full value in the year they are added to the tax roll. In subsequent years they too come under the 2 percent limitation until resold. Yet, when added to the tax roll, they represent a large change in assessed value over the previous year's value and a significant source of new property tax revenue for the City.

Within the existing city limits, the general fund only partially benefits from the growth in property tax revenues, whether from new development, changes in ownership, or the slow 2 percent growth of existing development that remains in the same ownership. This is because most of the increase in property tax revenues goes to the redevelopment agency and is not available to the general fund.

Roughly 60 percent of the City is in the redevelopment project area. All the property tax from increases in assessed value within this area goes to the redevelopment agency (except about 26 percent which is allocated to Sonoma County). The City's general fund receives property taxes from the redevelopment area based only on a share of the assessed value that existed on the date the redevelopment plan was adopted. This tax base is "frozen" by redevelopment law, so the general fund's property tax revenues from the area do not increase regardless of the actual change in assessed value.

From the 40 percent of the City that is not in the redevelopment area the general fund receives 17.7 percent of the property tax that results from increases in assessed value. This is the same percentage of the increase in property tax that the general fund received from all property in the City prior to the adoption of the redevelopment plan.

Healdsburg can expect that the assessed value of property in the part of the City not in the redevelopment area will grow in the future because of limited amounts of new residential development and changes in property ownership. Yet, most of the growth in assessed value within present city limits will occur in the redevelopment area. This is because the area comprises most of the City and all commercial and industrial districts (where new development is expected in coming years).

Allocating the property tax growth from such a large portion of the City solely to the redevelopment agency allows Healdsburg to support many beneficial revitalization efforts and to be very active in promoting economic development. It also, however, limits the ability of the general fund to share in future increases in property tax revenue (at least for the duration of the redevelopment plan). In addition, it makes it more

difficult for general fund property tax revenues to grow at a rate sufficient to keep pace with inflation.

General fund property taxes will keep up with inflation if property turnover outside the redevelopment area occurs at a moderate pace and property values increase faster than the general inflation rate. The limited amounts of development that can take place outside the redevelopment area (and within the existing city limits) will improve the likelihood that general fund property taxes will grow with inflation and increased public service needs. Yet, because the potential for new development outside the redevelopment area is not large, the growth of property taxes will be dependent mostly on property turnover. If turnover is limited or if property values do not increase faster than inflation, property taxes may grow slowly in real terms.

The City is contemplating the annexation of adjacent unincorporated areas. Land north of the existing city limits within the Urban Service Area is designated for residential development in the 1978 General Plan. Land west of the City (between Healdsburg Avenue and U.S. 101) is designated for industrial and mixed use development in the 1978 Plan. These annexations would allow for a large amount of new development. The area north of the City has the potential for increasing the number of housing units presently in Healdsburg by half or more.

This new development would be a significant source of additional property tax for the City. And, since the annexed property would not be in the redevelopment area, the general fund would receive the City's full share of future property tax growth.

The general fund's portion of the increase in property tax from annexed areas, however, would be much smaller than the share it receives from development within present city boundaries. A 1979 agreement with Sonoma County limits the City's share of property tax growth in annexed areas to about 7.6 percent of total tax growth, compared to 17.7 percent in those areas of the City not in the redevelopment area. For projects of comparable value, then, new development in annexed areas would produce about 57 percent less property tax revenue for the general fund than development within present city limits.

Depending on the amount and type of development allowed in annexed areas, even a small share of the additional property taxes from future development could result in a significant increase in total general fund property taxes. Yet, the smaller share of taxes from annexed areas points to some concern about the ability of property tax revenues to increase at a pace that keeps up with the need for additional general fund services in annexed areas, particularly for development north of the City.

Sales Tax

The sales tax is Healdsburg's largest single general fund revenue source, accounting for over 40 percent of all revenues in 1983-84. The sales tax, more than any other major general fund revenue source, has the potential to show robust growth in the future. A portion of future sales tax growth will come from the retail spending of existing residents. A larger share of

future tax growth, however, will result from new residents in Healdsburg's trade area and the spending of day and overnight visitors in the City, as discussed earlier in this chapter.

The City's sales tax collections have been strongly influenced by the performance of a relatively small number of businesses. Auto dealers, building materials stores, and non-retail businesses selling some items at retail (such as Boise Cascade and Basalt) account for about 70 percent of all tax revenue from retail sales. The volume of sales for these businesses (and the amount of the City's tax collections) can vary widely from year to year depending on general economic conditions and cycles in regional and state construction activity.

Auto dealers and building materials outlets will continue to be an important source of sales tax revenue for the general fund. With a broader sales tax base, however, the City would be less vulnerable to the large swings in sales activity that can be expected to occur from time to time for both auto dealers and building materials outlets.

Healdsburg is making efforts to broaden its sales tax base by revitalizing the downtown area to attract new retail stores. Central to this effort is the promotion of the City to visitors. Spending of visitors will help to support new stores which will appeal to local residents as well. The successful revitalization of downtown will add to the sales tax collections of the general fund and assure the City of less annual variation in future sales tax growth.

The opening of Lake Sonoma recreational facilities is also likely to result in increases in retail sales tax as visitors stop in Healdsburg for recreation supplies, meals, and other convenience purchases. It is difficult to predict the magnitude of this effect on sales tax growth, but it could be sizable, particularly for stores near the Dry Creek Road interchange of Highway 101.

It is likely that sales taxes will be an increasingly larger share of total general fund revenues in the future, particularly if the revitalization of downtown occurs as planned. Spending by visitors and new residents of Healdsburg's trade area will account for most of the growth in retail sales taxes.

Subventions

After the sales tax and property tax, the general fund's next largest revenue source is state and federal subventions. Over 60 percent of all general fund subventions come from federal revenue sharing.

Most subventions are allocated to the City based on its population. As the City's population grows, so too does its potential for obtaining more subvention revenue.

Although current revenues from subventions are higher than in recent years because of the reinstatement of the state motor vehicle license fee for local governments, the long-term outlook for revenue growth is not encouraging. Some subvention revenues are likely to be reduced in the

future. Federal revenue sharing was abolished in 1986. The loss of revenue sharing and concerns over other federal and state aid suggest that Healdsburg will receive smaller amounts of subvention revenue per capita over the long-term compared to past years. At a minimum, subventions are likely to account for a smaller share of total general fund revenues in the future than in the recent past.

Other Local Taxes

Other local taxes include the transient occupancy tax (hotel tax), business license tax, and franchise tax. These taxes could represent a larger share of general fund revenues in the future, particularly given the outlook for the growth of general fund property taxes and subventions.

New residential and non-residential development would result in increases in revenues from other local taxes. Non-residential development would probably have the greatest effect on revenue growth, due to the large share of total local taxes represented by the business license tax and transient occupancy tax.

The transient occupancy tax has the potential to show greatly increased collections from the city's hotels, motels, and inns. The additional revenues will come from higher occupancies in existing lodging, new hotel development, and the recent increase in the tax rate. The development of a hotel on the Plaza could roughly double the revenues from the transient occupancy tax. Over time, the transient occupancy tax could become one of the most important sources of general fund revenues if additional hotel and motel development continues.

If the need arises, the City Council has the ability to raise the tax rate of most local taxes. This discretionary taxing power, however, is not available for the sales tax, property tax, and subventions. Thus, with local taxes the City has the flexibility to increase general fund revenues by raising tax rates, if this is politically acceptable. The rate of the transient occupancy tax was recently increased by one-third, resulting in a large increase in tax collections from the city's hotels, motels, and inns.

Enterprise Activities

The operations of the City's enterprise activities are financed with service charges. Users of the utility systems pay a fee which represents their share of the cost of providing the service. The fees are set by the City Council so that the total revenues collected from fees will match the total cost of the service.

Growth will add to the City's costs for enterprise services, but it will also result in additional revenues from fees levied on the users of the services. The City's ability to adjust user fees from time to time insures that the future costs of the utility systems will be covered by adequate revenue collections.

The mix of utility consumers in the city has a large bearing on the relationship between revenues and costs for enterprise services. Under the present rate structures, large consumers help to defray the cost of serving

many small consumers. Non-residential development, with its generally higher utility needs compared to residential development (particularly for electricity), contributes toward moderating the rates for all consumers. A mix of new non-residential and residential development will lessen the need to raise the utility rates over time to accommodate increased costs. If future development results in mostly residential consumers, there may be greater pressure for fee increases.

The effect of large non-residential utility consumers on the operations of enterprise services can be illustrated by the Fairchild plant. Fairchild, before it closed in June 1985, was a large electric consumer, accounting for about 20 percent of the revenues of the City's electric utility. If the plant is not replaced by a business with similar energy needs, the City's electric costs will drop, but not as much as revenues. Because Fairchild makes up such a large share of the City's electric revenue base, there may be some need to adjust future electric rates.

Projected revenues from projected, comparatively low-density residential development will not over the long-term cover operating costs for utility operation. This will necessitate restructuring and increasing consumer service charges. Similarly the ratio of commercial/industrial utility demand versus residential may necessitate further restructuring.

The cost of capital improvements to Healdsburg's utility systems is financed by depreciation expenses, annexation fees, and development fees. Depreciation expenses are included in the user charges levied on utility consumers and are intended to collect revenues to replace aging portions of the existing utility systems. Annexation fees are levied on owners of property annexed to the City. These fees, like depreciation, are used to finance repairs to and replacement of existing facilities. Development fees, levied on all new development, are intended to finance the additional facilities needed to serve growth.

The City's development fee structure is based on various assumptions regarding the amount of future residential growth. If less growth occurs than assumed by the fee structure, the amount of revenue collected from development fees may not be sufficient to pay for all needed facilities. This is because improvements to some utility systems could be necessary even with relatively small amounts of growth. It may be more costly (on a per-dwelling basis) to provide for less growth than for the full 1,800 units assumed by the development fee structure, although this is not certain. If the City is to adequately account for the capital improvement requirements of a lower amount of growth, it may be necessary to reevaluate its development fee structure.

The development fee will also need to be reevaluated from time to time to account for inflation's effect on the cost of the improvements that the fee is intended to finance. The current fee structure does not automatically adjust for the rising cost of capital improvements. Over time, this would result in the collection of far less revenue than the amount needed to build new utility facilities. The same problem applies to the annexation fees, which also does not have an inflation provision.

Capital Improvements

Growth will require capital improvements over and above those associated with the City's enterprise activities. Streets, drainage, and park and recreation facilities are important examples.

The facilities needed to accommodate future growth will be financed with development fees in the same manner as the capital improvements of enterprise activities. Thus, the same concerns related to development fees will apply: 1) Is the development fee structure adequate for lesser amounts of growth than assumed when the fees were established?; and 2) will the City allow for the fees to account for inflation over time?

There is some concern that development fees may not be adequate to finance all street improvements needed to serve new development, even at the level of growth built into the fee structure. The fee was set to pay for the cost of widening Healdsburg Avenue and to undertake other limited street improvements. If new development, particularly in the northern area of the city, requires major street improvements beyond those typically associated with subdivision construction (which developers will be required to build), the development fee may not provide enough revenue to pay the full cost. The City could use state gas tax revenues to finance new streets, but it is likely this revenue source will be needed to maintain existing streets. State or federal grants are often used to fund a portion of the cost of major street improvements, but their availability in the future is uncertain. If only limited funding assistance is likely to come from gas tax revenues or state or federal grants, the City may need to consider adjusting the development fee to account for any street costs that exceed those used to establish the original fee.

Fiscal Differences Among Land Uses

The fiscal effect of new development varies by land use. In general, for an equivalent unit of development (square feet of building space, for example), retail stores and hotels generate more city general fund revenues than residential land uses. Offices and industrial land uses often generate more revenues than residential land uses, although this can depend on the type of businesses occupying office and industrial space.

The revenue advantages of retail stores and hotels result primarily from the sales tax and (for hotels) the transient occupancy tax. These taxes generate high per-unit revenues, exceeding by a large amount the revenues generated by the property tax from stores and hotels. Both taxes are levied as a percent of sales (retail sales for the sales tax and room charges for the transient occupancy tax). Since tax revenues increase as a function of sales, they rise as inflation changes the prices charged for retail goods and hotel rooms. Thus, revenues from these taxes are more likely to keep pace with inflation than the collections from other city revenue sources.

General fund revenues for residential, office, and industrial land uses come mostly from the property tax. After the initial addition of tax revenues following new development, property taxes increase at a rate that is usually slower than inflation until property is resold. Only with residential development can the City depend on frequent property resales being a major

source of property tax growth. Non-residential property changes ownership infrequently.

Service costs also vary by land use. Residential land use typically requires more city services and results in higher service costs, compared to an equivalent unit of commercial and industrial land use. Nearly 80 percent of city general fund expenditures go for public safety and park and recreation services. Most of the activities of these services relate directly to residential land uses. Among the non-residential land uses, retail stores and hotels have higher service costs than office and industrial land uses, due primarily to their greater impacts on public safety services.

In general, then, new non-residential development results in higher revenues and lower service costs than equivalent units of residential development. Revenues are highest for retail stores and hotels. The amount and type of non-residential development that will occur in Healdsburg is largely a function of the market demand for various business activities. This potential is limited for certain land uses, as discussed in an earlier section of this chapter.

Although new residential development will probably produce less revenue and require higher service costs than many non-residential land uses, it still provides many fiscal benefits for the City. It is the residents who make the majority of retail purchases in city stores that result in sales taxes. The residents also constitute a large portion of the work force for city businesses and industries that generate municipal revenues. In addition, the resale of residential property contributes a major share of the City's long-term property tax growth.

Location of Development

The location of future development in the city will have an effect on the fiscal benefits derived from growth. In general, the fiscal benefits are likely to be higher if growth is concentrated in or near already developed areas. This allows growth to take advantage of existing utility systems and established patterns of service.

Given the positive impact on redevelopment tax increments and property taxes, development of high-density and intensive uses should be encouraged to the maximum extent possible within the redevelopment project area and those areas of the 1979 city limits outside that project area.

The proposed annexation of a large area to the north of the present city limits raises some concerns about the fiscal consequences for Healdsburg. Development there will require additional costs for many city services, and may necessitate a new fire station to ensure adequate fire response times.

The agreement between Healdsburg and the County of Sonoma limits the City's share of property taxes from development in annexed areas to less than half the amount the city would receive from development within the existing city limits. If the development in the north is primarily residential, the property tax will be the largest single revenue source. A reduction of more than 50 percent of the City's usual property tax share for residential

development in annexed areas would seriously reduce the revenue opportunities from growth in the north.

If the tax agreement with the County is not revised, Healdsburg stands to receive far less revenue from development in annexed areas than from areas in the existing city limits. This could mean that the City will need to look to commercial development (with its sales and transient occupancy taxes) to provide the compensating revenues to accommodate growth.

A similar need for revenues from commercial development will result from the redevelopment agency's use of the property tax increment from 60 percent of the city. All increases in property taxes in the redevelopment area go to the redevelopment agency and cannot be used to pay for general fund services. Thus, only the growth of revenues that are not property taxes will benefit the general fund in the redevelopment area. To ensure adequate revenues for the general fund, the City must support development in the redevelopment area that will bring in revenues from sources other than the property tax. Retail stores and hotels provide the best opportunity for generating non-property tax revenues.

FINDINGS

Retail and Office Space

- Healdsburg can expect to see increased retail sales and a demand for additional retail space. The growth of retail activity in Healdsburg will result from both increased population in the local trade area and increased tourism. By the year 2005 retail sales in Healdsburg are expected to increase to \$88 million per year (in 1985 dollars). Based on this estimate, and after discounting for increased sales by existing businesses and expansion of retail businesses in currently vacant space, Healdsburg will likely need approximately 200,000 square feet of new retail space by the year 2005.
- The surrounding downtown area will likely be the focus of increased comparison goods and eating and drinking establishment retail activity. Increased demand for a limited amount of prime ground floor space will increase rents over time, thereby encouraging lower volume retail businesses and offices to locate on upper floors or away from the immediate Plaza area. Future shopping activity for convenience goods is likely to be concentrated in its present location: the periphery of the downtown and the Dry Creek Road area. Highway-related commercial businesses are likely to locate adjacent to highway interchanges, with the Highway 101 - Dry Creek Road interchange the preferred location.
- There will likely be limited demand for office space in the future. Firms desiring office space in Healdsburg will probably be relatively small-space users providing business and professional services to local residents, companies partial to a small town atmosphere, firms related to the area's viticulture, building materials and geothermal industries, and small firms looking for relatively inexpensive space. Office demand will focus on the greater downtown area, Healdsburg Avenue and the Dry Creek Road area.

- Healdsburg has significant potential for increased destination tourist demand, especially if the planned hotel development on the west side of the Plaza occurs and if Healdsburg is more aggressively marketed. Highway-related visitor demand, such as future traffic to Lake Sonoma, will affect demand for commercial space primarily around highway intersections and with respect to such travel-oriented goods as fast foods, gasoline, convenience goods and recreation-related items. Over time, highway-related visitor demand could contribute to increased destination travel to Healdsburg as visitors are exposed to the charm of the city and its Russian River setting and to the surrounding wine country.
- In order to ensure a viable commercial community in the future, the city might consider concentrating its commercial areas and working to interlock existing nodes in the downtown area, rather than allowing more dispersed development.

Industrial Space

- The review of the market for industrial development indicates that Healdsburg can expect a demand for roughly 40,000 square feet annually from the types of industries it has historically attracted (small-space users that do not need to be close to major business centers and labor markets, or local industries serving the immediate area).
- In the short term, most of the city's new industrial activity is likely to be in the established industrial areas south of Grant Street and in the vicinity of Dry Creek Road.
- Other industrial areas of the city are likely to experience little development pressure over the next decade or longer. There are a number of obstacles to development, including insufficient services and incompatible land use mix.
- Over the longer term, Healdsburg could become more competitive for larger-space users as existing space in other county locations diminishes. Some areas in the city that could accommodate large-space users, however, will require significant investment in public infrastructure before major development occurs.

Fiscal Considerations

- For general fund services, the fiscal benefits for commercial development are usually greater than from other types of development. Motel and hotel development typically generates the largest fiscal benefits per square foot of development.
- Visitor-related development can be a valuable source of revenue growth for the city. Visitor development usually brings high revenues in relationship to the costs required to provide public services for visitors.

- Because all property tax growth in the redevelopment area goes to the Redevelopment Agency, the additional revenues needed to pay for general fund services to new development in the redevelopment area must come from sources other than the property tax. The City will be better off fiscally if it promotes commercial development in this area, especially development that provides high per-unit revenue that can grow with inflation.
- The growth of commercial development in Healdsburg will depend primarily on the market demand for various business activities and the attraction of Healdsburg for visitors. The outlook is quite positive. But there are some limiting factors for certain types of development. Earlier sections of this chapter on market potential discuss the important issues affecting future non-residential growth.
- Whether the City will derive fiscal benefits from development in annexed areas of northern Healdsburg could depend on the status of the present property tax agreement with the County. Under the existing agreement, property taxes to the City would be so low from this area as to raise concerns about the ability of new development (particularly residential development) to generate sufficient revenues to pay for needed services.
- Development fees are imposed by the City to pay for the capital improvements required to serve growth. Important questions regarding the development fees are:
 1. Would the fees be adequate with lesser amounts of growth than assumed when the fees were established?
 2. Do the fees adequately reflect the real need for certain capital facilities, such as major street improvements?
 3. Is the City willing to amend the fee to adjust for inflation over time?
- The City may wish to consider alternatives to development fees for financing capital improvements in certain areas where facility costs may be higher than average (such as the northern area or the southern industrial area along Old Redwood Highway). Possible financing alternatives include special assessment districts and community facilities districts.
- For the City's enterprise services, development fees appear to be adequate to provide the increment of capacity needed to serve anticipated growth (although there are questions about the fee structure if less growth is permitted than the amount built into the fees). The service charges that pay for enterprise services can be adjusted to account for operating costs that rise over time. The most important consideration for enterprise services is the mix of utility customers (residential vs. non-residential) so that high volume users continue to defray the costs for smaller consumers and have a moderating force on the need to raise service charges.

- Commercial and industrial development help to defray the cost of utilities for residents, especially high volume consumers located in easily-served areas. To the extent that high volume consumption does not significantly increase the need for new electric and water supplies or sewage treatment facilities, enterprise services benefit from commercial and industrial growth.
- Service charges for enterprise services will need to increase over time regardless of growth. The rising cost of power and the growing expenditures for salaries and supplies are major factors affecting the service charges. The City's approach to future growth can have an influence on the rate of cost increases, especially with respect to the mix of consumers and the effect of the location of growth on the cost of providing utilities.

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PERSONS CONTACTED

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CHAPTER V

TRANSPORTATION

INTRODUCTION

A city is defined and at the same time constrained by the network of highways, roads, streets and transit services that move its residents and goods through and in and out of the city. Because of Healdsburg's size, mobility within the city is still relatively easy. Because of its physical setting, however, expansion of the city's transportation system is constrained.

This Chapter discusses Healdsburg's transportation system and services, including streets and roads, parking, bus service, rail service, air service and taxi service.

STREET AND ROAD SYSTEM

Physical Constraints on the Street and Road System

Healdsburg is a compact city defined by a number of man-made and natural features which both act as a framework for the city's street and road system and constrain its expansion and improvement.

Highway 101 acts as a physical barrier along the city's west side, limiting westerly access because of the few number of grade-separated crossings. This freeway barrier is pierced by underpasses at only five points within the city: Chiquita Road; Dry Creek Road; Mill Street-Westside Road; Healdsburg Avenue; and Old Redwood Highway.

The Russian River and Foss Creek also restrict access, requiring bridges wherever they are crossed. The two major bridges in Healdsburg are along Healdsburg Avenue east of Front Street. Memorial Bridge, which crosses the Russian River, is scheduled for reconstruction. Basalt Bridge, which spans the Russian River overflow area, was rebuilt in 1987 as a three-lane bridge with sidewalks.

The Northwestern Pacific Railroad tracks also act as a constraint on the street and road system because of the need to provide crossing protection, or, preferably, grade separation, wherever roadways cross it.

Because of these physical barriers, the city has only a few "gateway" intersections through which flows much of the city's traffic. These are the Healdsburg/Mill/Vine intersection, the Healdsburg/March/Dry Creek intersection, and the Healdsburg/Front intersection (the east leg of which is the Memorial Bridge over the Russian River). In addition to providing access to and from the community, these intersections also carry a significant amount of the city's internal traffic.

These constraints limit circulation alternatives within and between the existing and developing areas of the city. Continuous travel routes through the city are limited to a few, already well-used, roadways.

Functional Classification of Streets and Roads

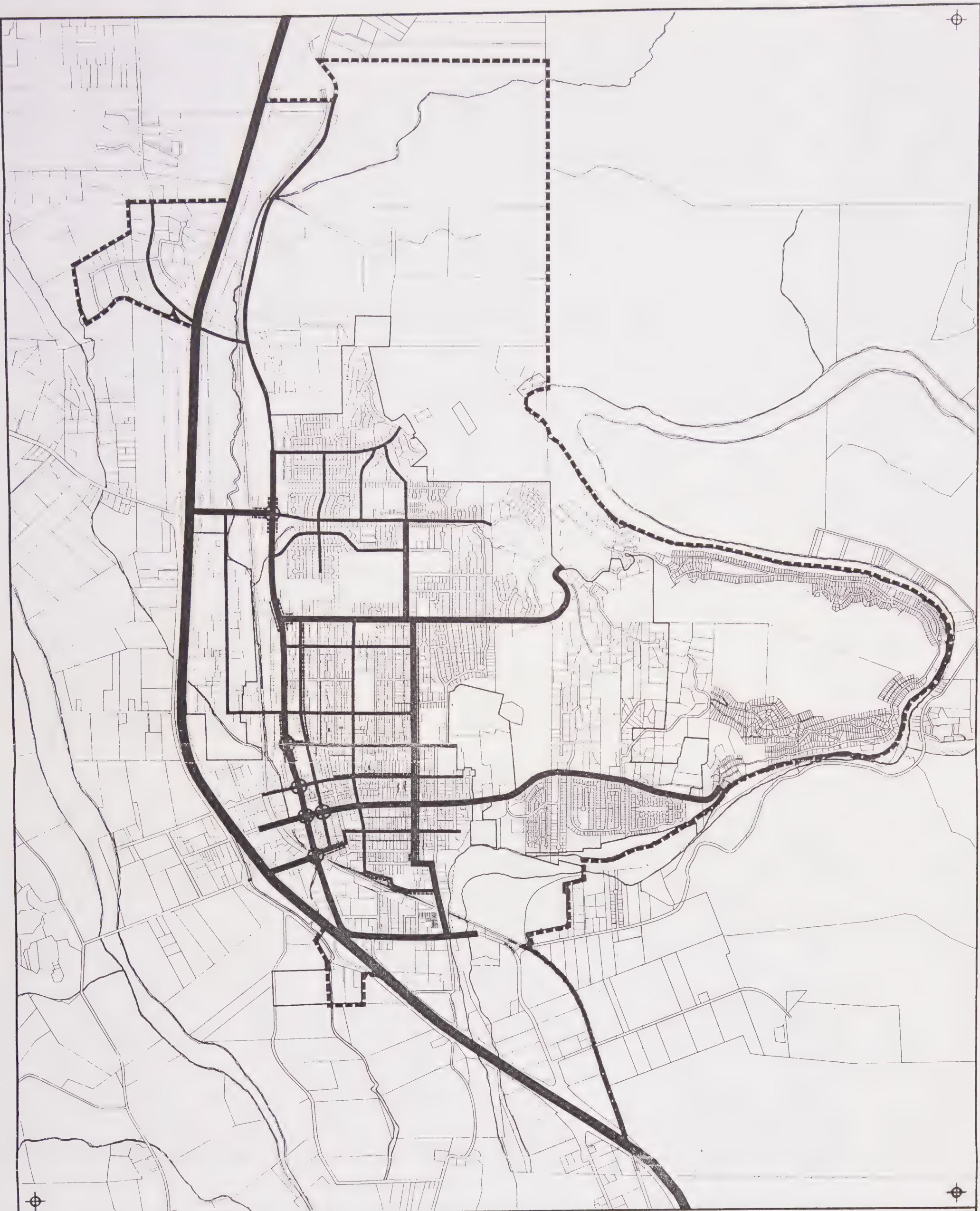
Healdsburg's street and road system can be classified according to four basic functional types of roadways:

1. Local service roadways provide immediate access to properties, are likely to be discontinuous in alignment, and generally carry very light traffic volumes. Those streets not otherwise classified as any of the following three types of roadways fall into this class.
2. Collector roadways are fed by local service roadways, provide local circulation options, provide connections to other roadways, and generally carry light to moderate traffic volumes. Roadways falling into this class are: Tucker Street, North Street, Piper Street, Grant Street, Sherman Street, Monte Vista, March Avenue, Terrace Boulevard, Sunnyvale Drive, Chiquita Road, Grove Street, Lupine Road, Prentice Drive, Center Street, Fitch Street, Vine Street, and Healdsburg Avenue north of Sunnyvale Drive.
3. Arterial roadways are fed by local service and collector roadways, provide intra-city circulation and connections to regional roadways, and generally carry relatively heavy traffic volumes. Roadways falling into this class are: Powell Avenue, Matheson Street/Fitch Mountain Road, University Street, Dry Creek Road, Mill Street, and most of Healdsburg Avenue.
4. Freeways are fed by collector and arterial roadways, provide inter-city and intra-city travel, provide connections to other regional highways, and are capable of carrying heavy traffic volumes. Highway 101 serves this function in the Planning Area.

For a community of the size and scale of Healdsburg, it is not unusual for some roadways to serve dual functions, such as providing both arterial and collector service. It is, therefore, difficult to clearly classify every roadway. Furthermore, the width of a roadway does not always directly correspond to its function in the overall circulation system. Generally, however, the wider the roadway the more regional is its function. Figure V-1 depicts the Consultant Team's functional classification of the city's street and road system.

Roadway Widths and Physical Characteristics

Most of the streets within the city are two-lane streets. The principal exceptions are Healdsburg Avenue north of Powell Avenue and south of Mill Street, some east-west streets at their intersection with Healdsburg Avenue, and Vine Street. Roadways within the older portion of the city are generally narrower than in newer areas. There are several street segments where parking has been prohibited on one side of the street to facilitate two-way traffic flow. There are no one-way streets in Healdsburg.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

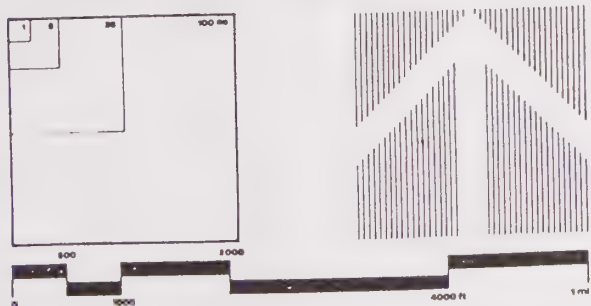


Figure V-1. STREET & ROAD SYSTEM, TRAFFIC SIGNALS & MAJOR PARKING PROHIBITIONS

- Collector Street
- Arterial Street
- Freeway
- Traffic Signal
- Major Parking Prohibitions

Source: Consultant Team, 1985

Prior to 1987, the City had not adopted standard cross-section designs for the various types of streets described above. The widths of new streets were determined on a case-by-case basis during the development review process.

Healdsburg Avenue, within the developed portions of the city, has right-of-way widths ranging from 60 to 84 feet and street pavement widths ranging from 40 to 59 feet.

Streets in the area east of Healdsburg Avenue and south of Powell Avenue have right-of-way widths generally within the range of 40 to 66 feet. Street widths vary from 28 to 48 feet, although, there are some streets with even narrower pavement widths. In the area east of Healdsburg Avenue and north of and including Powell Avenue, right-of-way widths are generally in the range of 50 to 60 feet and the street pavements are between 35 and 45 feet wide. The streets on the west side of Healdsburg Avenue generally have right-of-way widths of 60 feet or more.

The traffic-carrying capacity of city streets can be quantified according to the ability of the various intersections to accommodate peak-hour traffic volumes. The peak hour is the hour of highest traffic flows. Intersections are the critical valves in the street system where traffic conflicts are controlled by signals or STOP and YIELD signs.

The ultimate "capacity" of a street is the maximum level of traffic which a street of a given width (number of lanes) can carry in a specified time period (per hour or per day) without resulting in extreme congestion at peak traffic periods. Since "Ultimate" capacity has limited usefulness for planning purposes--a roadway at "Ultimate" capacity is generally considered an unacceptable condition--level of service criteria are used to identify lower traffic volume levels associated with better (free flowing) peak period traffic conditions. Level of Service criteria are generally correlated with the speed of traffic and the proportion of the "capacity" represented by actual traffic levels.

For urban roadways, the proportion of capacity used, or volume-to-capacity (V/C) ratio, is usually the primary criteria used to characterize the various levels of service. Service levels are identified by the alphabetic characters A, B, C, D, E, and F - with A representing the best (most free-flowing) peak period traffic conditions and E representing the worst conditions with traffic volumes at or near capacity. Level F is a special case defined as any condition in which traffic flow at a given intersection is blocked by conditions outside of the intersection itself (e.g., backups from a downstream intersection).

Table V-1 below presents a summary of the relationship between Level of Service, V/C ratio, and the relative peak-period congestion associated with each level of service.

TABLE V-1
LEVEL OF SERVICE CRITERIA

<u>Level of Service</u>	<u>V/C Ratio Range</u>	<u>Conditions</u>
A	< 0.61	Minimum delay
B	0.61 - 0.70	Increasing delay
C	0.71 - 0.80 -	with increasing
D	0.81 - 0.90	V/C ratio
E	0.91 - 1.00	Excessive delay

Source: Consultation Team, based on TRB Circular 212, January 1980.

Peak period traffic conditions of Service Levels C or D or better are considered within the range of acceptable congestion or delay for urban communities. In smaller communities, however, drivers are typically impatient with any delay in traffic; heavier traffic levels and congestion will usually be tolerated for short periods during special occasions or local celebrations, but not on a regular, day-to-day basis. In these cases, it is not unusual for Service Levels A or B to be cited as the only acceptable conditions.

Daily traffic volume levels associated with Service Levels A through E are shown in Table V-2 for two-lane and four-lane streets. The volumes shown would apply to a collector or arterial street considered the major street at an intersection. Even lower volumes would apply to a street considered the minor street at an intersection.

TABLE V-2

MAXIMUM DAILY TRAFFIC VOLUMES
ASSOCIATED WITH EACH LEVEL OF SERVICE

Level of Service	Maximum V/C Ratio	Maximum 2-Way Volume	
		Two-lane Street	Four-lane Street
A	0.60	7,500	15,000
B	0.70	8,750	17,500
C	0.80	10,000	20,000
D	0.90	11,250	22,500
E	1.00	12,500	25,000

Source: Consultant Team, based on assumed standard facility design and usage.

The traffic volumes in Table V-2 are generalized approximations and should be used only as rough guidelines. Many factors associated with a particular street could increase or decrease these values, such as the width of traffic lanes, the relative amount of cross-traffic at intersections, the presence or absence of on-street parking, and the presence or absence of left-turning lanes at intersections.

Signalized Intersection Controls

There are currently (1987) six intersections within the city controlled by traffic signals; all but one of which are on Healdsburg Avenue:

- Healdsburg Ave/Mill St/Vine St
- Healdsburg Ave/Matheson St
- Healdsburg Ave/North St
- Healdsburg Ave/Piper St
- Healdsburg Ave/March Ave/Dry Creek Rd
- Matheson St/Center St

These locations are shown on Figure V-1.

Traffic Volume Levels

Traffic volume levels on Healdsburg's streets range from a few hundred vehicles per day (vpd) on local service streets to over 13,000 vpd on portions of Healdsburg Avenue. The streets with the heaviest traffic are shown in Table V-3:

TABLE V-3
TRAFFIC VOLUMES ON SELECTED STREETS
1985

	Traffic Volumes Vehicles Per Day (vpd)		
● Healdsburg Avenue	5,600	-	13,150
● Dry Creek Road/March Avenue	2,400	-	8,600
● Matheson Street/ Fitch Mountain Road	1,400	-	5,900
● Center Street near the Plaza	4,200	-	5,800
● Mill Street	3,500	-	5,700
● University Street	2,400	-	4,100
● Powell Avenue	3,900	-	5,400

Sources: Traffic counts provided by Consultant Team, City of Healdsburg Public Works Department and Caltrans.

The daily traffic volumes on Highway 101 in the vicinity of Healdsburg range from 13,800 vpd north of the Dry Creek Road interchange to 25,000 vpd south of the Healdsburg Avenue interchange.

The current daily traffic volumes on the city's major streets and on Highway 101 are presented in Table V-4, and shown on Figure V-2. The typical daily variations in traffic volumes on streets within the city are demonstrated by the Healdsburg Avenue data presented in Table V-5.



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

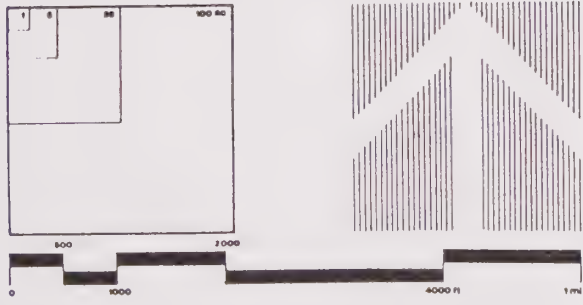
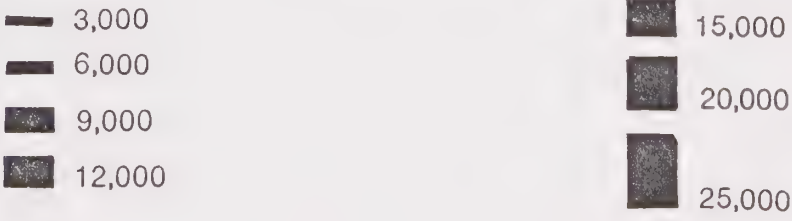


Figure V-2. CURRENT TRAFFIC COUNTS

24-HOUR TRAFFIC VOLUMES

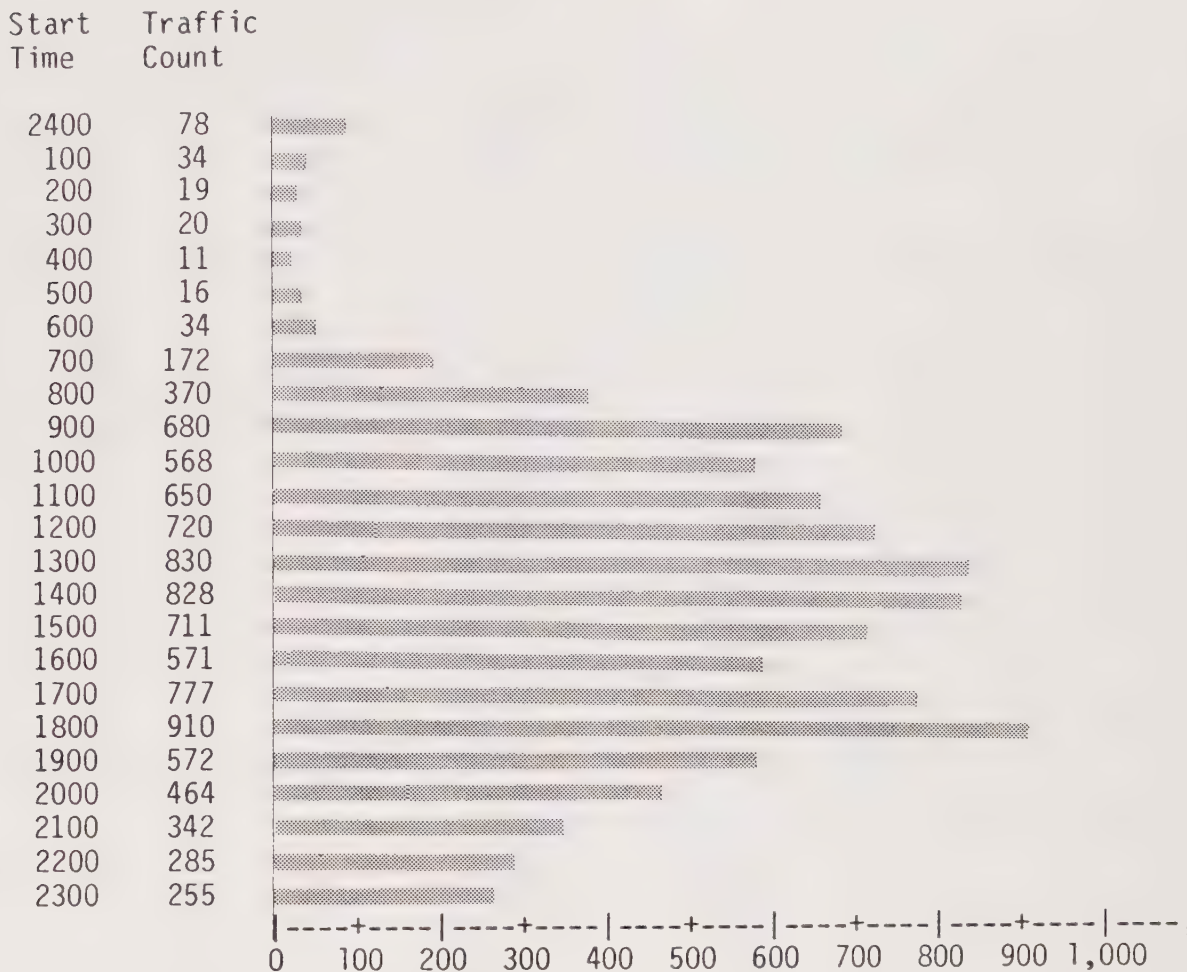


Sources: City of Healdsburg Department of Public Works Counts, 1983-85; CALTRANS Counts, 1983-85; Barton - Aschman Counts, 1983-85; Consultant Team Counts, 1985

TABLE V-4

TWENTY-FOUR HOUR TRAFFIC COUNT

Healdsburg Avenue (between Matheson and Mill)
Monday, April 29, 1985



Total: 9846

Source: Consultant Team, April 1985

Traffic Generation Rates

Based on empirical studies, traffic engineers are able to project the amount of traffic most types of development will generate. Table V-5 depicts typical trip generation rates for the most common types of development.

In this context, a trip is defined as a one-way vehicle movement which either begins or ends within a given area. The daily and peak hour trip rates shown in Table V-5 represent the number of "trip ends" (including the arrival end and the departure end of trips) which a given type of land use

will generate per unit of measure indicated (i.e., per dwelling unit, per acre, or per 1,000 square feet of floor space).

The peak hour trips generated by a given land use are those trips which are likely to occur during the highest one-hour period of traffic activity on the adjacent streets during the afternoon peak period (generally 4-6 p.m.) on weekdays. These peak hour trips are included in the daily trip rates for each land use shown. The amount of traffic generated in the peak hour varies somewhat by land use type. Overall, the peak hour volume on a given street is typically about 10 percent of the daily traffic volume carried by the street. Actual counts on Healdsburg Avenue confirm this general relationship, as shown in Table V-7 where the peak hour volume is shown to be nine percent of the daily volume.

TABLE V-5
TYPICAL TRIP GENERATION RATES

<u>Land Use</u>	<u>Type</u>	<u>Per</u>	<u>Daily Rate (trip ends)</u>	<u>P.M. Peak Hour Rate (trip ends)</u>
Residential	Single-family	D.U.	10.00	1.00
Residential	Multi-family	D.U.	6.10	0.70
Residential	Mobilehome	D.U.	4.80	0.59
Office	25 ¹	Acre	133.90	24.00
Office	40 ¹	Acre	214.30	38.30
Market		1000s.f.	125.50	8.82
Discount Store		1000s.f.	70.10	3.79
Commercial	<50,000s.f.	1000s.f.	117.90	14.42
Commercial	50-100,000s.f.	1000s.f.	82.00	7.80
Commercial	100-200,000s.f.	1000s.f.	66.70	5.90
Commercial	200-300,000s.f.	1000s.f.	50.60	4.80
Restaurant	Fast Food	1000s.f.	553.00	31.60
Restaurant	Coffee Shop	1000s.f.	164.40	10.50
Restaurant	Quality	1000s.f.	74.90	6.14
Industrial	Light	Acre	52.40	10.10
Industrial	Heavy	Acre	15.60	2.20
Industrial	Warehouse	Acre	56.10	18.80
Motels		Occupied Rm.	10.05	0.70
Motels		Occupied Rm.	10.01	0.65
Mobile Home		Occupied Unit	4.08	0.60
Retirement				
Community		D.U.	3.03	0.40
Service Sta.		Pump	133.00	3.60
Convenience Mkt.		1000s.f.	625.00	46.70

¹ Square feet of floor space as percentage of site area.

Source: Trip Generation, ITE, 1982.

Traffic Accident Patterns

In 1985, there were 193 reported traffic collisions within the City of Healdsburg. This was down slightly from the 197 reported collisions in 1984. Table V-6 presents a tabulation of the traffic collisions reported in 1984 and 1985 by type of collision and by severity (property damage only or injury). There were no fatalities during these years.

TABLE V-6
TYPES OF TRAFFIC COLLISIONS AND SEVERITY
City of Healdsburg
1984 and 1985

Motor Vehicle versus:	1984		1985	
	Property Damage Only	Injury	Property Damage Only	Injury
Non-Collision	0	5	1	10
Pedestrian	0	9	0	5
Bicycle	0	6	1	7
Parked Motor Vehicle	23	7	25	2
Other Motor Vehicle	72	45	79	39
Fixed Object	12	12	17	5
Other Object	<u>5</u>	<u>1</u>	<u>2</u>	<u>0</u>
Subtotal	112	85	125	68
All accidents	197		193	

Source: SWITRS, California Highway Patrol, 1984 and 1985.

TABLE V-7
TRAFFIC COLLISIONS
PRIMARY COLLISION FACTORS AND SEVERITY
City of Healdsburg
1984 and 1985

<u>Primary Collision Factor</u>	1984		1985	
	<u>Property Damage Only</u>	<u>Injury</u>	<u>Property Damage Only</u>	<u>Injury</u>
Alcohol/Drugs	6	14	10	2
Unsafe Speed	8	10	12	6
Following too closely	1	4	4	2
Wrong side of road	11	4	11	4
Improper passing	3	1	3	2
Unsafe lane change	0	1	1	1
Improper turning	4	7	1	3
Automobile right of way	17	18	21	12
Pedestrian right of way	0	1	0	2
Hazardous parking	2	0	0	0
Unsafe starting/backing	15	1	13	2
Other improper driving	25	9	22	8
Other hazardous violation	0	2	1	3
Signals and STOP signs	2	5	5	5
Other than driver	3	3	4	5
Brakes/ other equipment	0	1	5	1
Pedestrian violation	0	3	0	1
Unknown	11	1	12	9
Subtotal	112	85	125	68
All accidents	197		193	

Source: SWITRS, California Highway Patrol, 1984 and 1985.

Table V-7 presents another tabulation for the same accidents with a breakdown of the primary collision factors and the severity. The largest category of known collision factors involves failure to yield the right of way to other motor vehicles. These accidents may be partly due to obstructed corner sight distance at many intersections in Healdsburg.

The 12 intersections with the highest number of reported traffic collisions in 1985 are presented in Table V-8.

TABLE V-8

HIGHEST TRAFFIC ACCIDENT INTERSECTIONS IN 1984
City of Healdsburg
1985

<u>Intersections</u>	<u>1985 Accidents</u>
Healdsburg & Mill	10
Healdsburg & North	10
Healdsburg & Bailache	9
Healdsburg & Powell	7
Matheson & Center	6
Healdsburg & Front	5
Healdsburg & Dry Creek	5
Healdsburg & Matheson	4
Matheson & University	4
University & North	4
Piper & Fitch	3
Mill & Center	3

Source: SWITRS, California Highway Patrol, 1985.

On-Street and Off-Street Parking

A parking analysis prepared in 1979 by John Roberto Associates, found approximately 1,550 parking spaces in and adjacent to the commercial core. Of these, approximately 900 were off-street spaces located in 31 lots in the commercial area, and approximately 650 were on-street spaces.

The highest accumulation of parked vehicles occurred at about 2 p.m., with an overall parking space occupancy of nearly 60 percent. At the peak hour, the parking lots north of the Plaza were found to be full, or nearly full. The on-street parking spaces around the Plaza were also heavily used at these times. Those spaces which were not as heavily used are located some distance away from the downtown concentration of business activity.

The 1979 analysis compared the number of existing off-street parking spaces and the total number of spaces which the City's parking ordinance would require if applied to the existing businesses. It was found that the theoretical parking deficit for off-street spaces was approximately 300 spaces. The total supply of 1,550 spaces (including both off- and on-street spaces) was, however, greater than the theoretical demand of 1,200 spaces estimated based on the zoning ordinance requirements.

The 1979 analysis concluded that on the average, there was an adequate supply of spaces at peak times. The study acknowledged, however, that the distribution of occupied spaces was not well matched with the areas of highest parking demand, resulting in shortages on a localized basis.

While some changes may have occurred since the 1979 study was conducted, the areas in that study with the highest parking demand are still the areas of the highest parking demands today. Primarily these include the on-street diagonal parking spaces around the Plaza, other on-street spaces in the vicinity of the Plaza, and the off-street spaces in the blocks around the Plaza and in blocks to the north of the Plaza.

A parking study prepared by the City in July 1985 for a smaller portion of the same downtown area found a supply of approximately 817 parking spaces (including green curb spaces). Of these, approximately 347 spaces are public spaces, 308 are on-street spaces, and 39 are off-street spaces (in the East Street lot). The remaining 470 spaces are provided in private off-street lots and parking areas.

In that study, occupancy checks were made at three times during the day on weekdays, with the following results for the study area as a whole:

9 a.m.	38% occupied
12 noon	51% occupied
5 p.m.	32% occupied

While this peak occupancy level is somewhat lower than the level found in the previous study, the findings of the two studies are generally consistent. In this latest study, the mid-afternoon time period was not checked, so it is not possible to make a clear comparison to the peak occupancy found at 2:00 p.m. by the earlier study.

Some subareas within the study area, according to this latest study, have occupancy levels in the 65-75 percent range. Five individual block-faces were found to be fully used during one or more of the observations. These were generally on the east side of the Plaza.

The key findings of this recent study are summarized below:

- The study area contains approximately 817 parking spaces, including 347 public spaces and 470 private spaces.

- Based on zoning ordinance parking requirements, existing uses within the study area generate a total theoretical demand for 1,319 parking spaces. The theoretical "primary" parking demand (derived by accounting for "off-hour" uses) is estimated to be 831 parking spaces.
- A theoretical parking deficiency of approximately 14 spaces exists in the study area if public parking is included. If public spaces are excluded, the theoretical deficit is approximately 360 parking spaces.
- Observed parking space occupancy was found to be at low to moderate levels, with only five areas having full utilization during one or more of the observation periods.
- Based on projected additional parking demand within the study area and probable changes to the study area's parking supply, the total future study-area parking deficit is estimated to increase to approximately 180 spaces.
- The following additional findings are also made:
 - The current one-hour time limit, which applies to most of the public parking spaces, may be too short.
 - Maximum utilization of the available parking supply may be hampered by instances of inappropriate or ineffective colored curbing in the study area.
 - Proper enforcement is hampered by confusing or lacking signage to provide parking limit information.
 - Many uses do not provide employee or tenant parking, and many of the private parking spaces which are provided are unmarked or poorly marked, and some are unpaved.

The study recommends a parking plan for the study area consisting of the following measures:

- Amend the zoning ordinance to include special parking criteria for the study area.
- Complete the acquisition of proposed parking sites within the study area, and construct parking lots. Also evaluate other sites for possible acquisition or lease.
- Initiate an awareness campaign to inform customers and employees about the location of public parking lots.
- Implement measures to increase time limits, add signage and markings, and make parking space additions and removals as recommended by the report.

Additional measures suggested by the report for the City's consideration include the following:

- Establish a parking assessment district whereby properties within the downtown area are assessed in accordance with their benefit derived from public parking facilities.
- Install parking meters to generate revenue and provide a convenient means of enforcement.
- Charge for the use of public parking lots.
- Initiate a permit parking procedure for residential areas near the downtown area to discourage non-resident parking.

Concern about parking in the downtown area was an important factor in the creation of the Healdsburg Downtown Association. The association, formed in 1985, has worked closely with the City in establishing a downtown assessment district under the Parking and Business Improvement Area Law of 1979 to finance improved parking and beautification efforts and to coordinate business promotions. Improvement of parking has been identified as a high priority for the funds to be generated by assessments and provided by the Redevelopment Agency.

During 1985 the Redevelopment Agency has acquired several sites and is negotiating for other sites in downtown to be developed as parking lots. (See Figure I-6.) A total of 245 spaces are proposed to be provided on these sites, with a net increase in parking supply (after existing spaces and added demands are accounted for) of approximately 95 spaces.

Parking Prohibitions

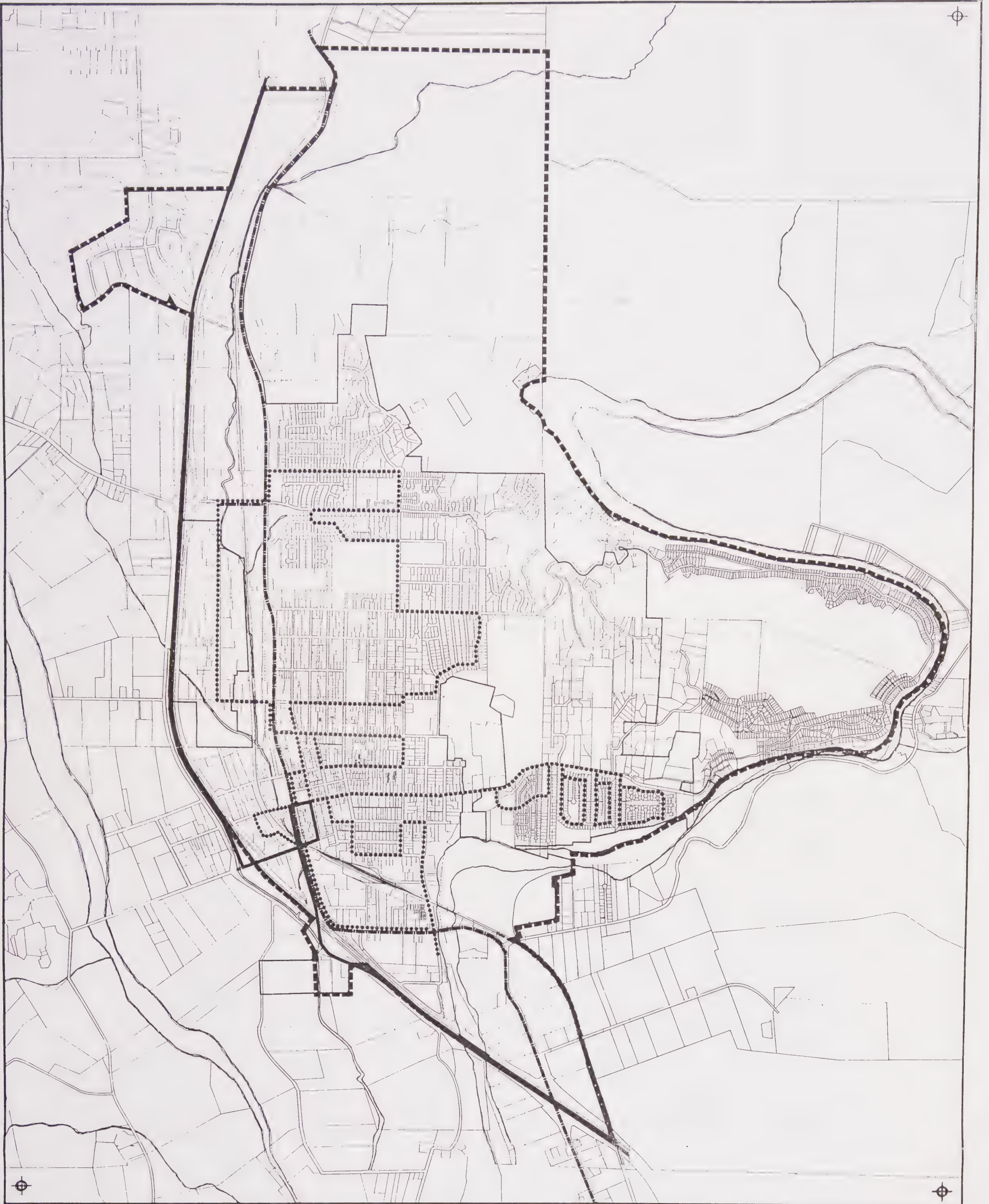
On several streets within the older parts of the city, parking has been prohibited on one side or both sides of the street. These parking prohibitions have been instituted to improve traffic flow where streets are narrow. The presence of parked vehicles on both sides of these narrow streets makes it difficult for motorists to pass each other comfortably and safely. By removing parking on one side of the street, enough travel way is provided on the street that two-way traffic flow can occur freely at normal speeds.

There are additional locations where parking has been prohibited near intersections to make room for additional turn lanes. There are also short lengths of red curb throughout the city.

Figure V-1 shows the locations of major parking prohibitions in the city. Incidental, minor parking prohibitions are not shown.

BUS SERVICE

Healdsburg is served by three different bus systems (see Figure V-3). Greyhound Lines, Inc., an interstate carrier, provides service from Healdsburg south to San Francisco and north as far as Portland. Currently (May 1985), five southbound and four northbound buses stop daily in Healdsburg, across from City Hall on Center Street. In April 1984, Greyhound closed its ticket office at the same location, but has not otherwise changed its service.



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

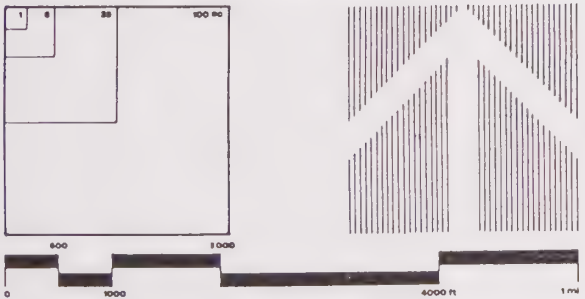


Figure V-3. BUS ROUTES

- Greyhound
- Sonoma County Transit
- Healdsburg Transit Service

Sources: Greyhound, 1985; Sonoma County Transit, 1985;
City of Healdsburg, 1986

Sonoma County Transit provides service from Healdsburg as far north as Cloverdale and as far south as Santa Rosa, with connecting service to points south as far as Petaluma. On weekdays, there are buses almost hourly between 6:00 a.m. and 7:00 p.m. The buses stop at Memorial Beach, at the Plaza, and at Dry Creek Road and Healdsburg Avenue.

The City of Healdsburg also operates its own transit service. The service includes two vans which operate from 8:30 a.m. to 4:00 p.m., Mondays through Fridays, on approximately one hour headways. The vans operate on regular routes although the routes are changed periodically as demand patterns change (at least twice a year). The current fares are 60 cents for adults and 35 cents for seniors, the handicapped and students.

Currently, the City of Healdsburg, the Healdsburg Chamber of Commerce and the Healdsburg Tribune jointly sponsor free bus service between 9:30 a.m. and 3:00 p.m. on Saturdays to promote shopping in Healdsburg.

Senior citizens make up the vast majority of Healdsburg Transit users. Ridership has recently declined and fare box receipts have dropped to less than 10 percent of total operating expenses. In March 1985, the Healdsburg City Council considered a proposal to increase bus fares for senior citizens, youths, and the handicapped from 35 to 50 cents, and for adults from 75 cents to one dollar. Action on the matter has been postponed indefinitely.

RAIL TRANSPORTATION

Northwestern Pacific Railroad owns and operates the only rail line in the Planning Area. The line runs between Highway 101 and Healdsburg Avenue through most of the city. At the intersection of Healdsburg Avenue, Vine Street and Mill Street, the rail line crosses Healdsburg Avenue and passes through Northwestern Pacific's switching yard before heading south across the Russian River toward Santa Rosa.

Rail activity in Healdsburg is limited to through-freight and local switching operations. Only two trains per day on Mondays, Wednesdays, and Fridays pass through Healdsburg. No trains pass through Healdsburg during the rest of the week. The northbound train passes through the city during mid-morning hours, and the southbound train passes through during the late afternoon or early evening hours. The train generally turns around in Ukiah for the southbound trip back to Petaluma. Trains are usually composed of one or two locomotives with 20 to 80 cars depending on shipping demands.

Although trains are infrequent, as they pass through the Planning Area they block traffic for up to five minutes at Bailhache Avenue, Front Street, Healdsburg Avenue, Mill Street, Matheson Street, North Street, Grant Street, Dry Creek Road, and Chiquita Road. Delays at Mill Street and Front Street may be even longer when trains are switching. All streets in Healdsburg cross the railroad tracks at grade--there are no overpasses or underpasses.

AIR TRANSPORTATION

Healdsburg residents rely primarily on three airports. For long distance flights, Healdsburg residents most often use San Francisco International Airport, approximately an hour and a half to the south. The Sonoma County Airport, located approximately eight miles to the south, is used for commuter flights and for general aviation purposes.

The third airport is the Healdsburg Municipal Airport, located three miles north of Healdsburg on Lytton Springs Road. The Healdsburg Municipal Airport, known as the Norton Sky Ranch before it was acquired by the City in 1979, has a 3,100 foot runway, which is capable of accommodating aircraft up to small jets. The airport's facilities include a number of hangars, maintenance buildings, commercial buildings, and fuel storage and pumps (see also discussion in Chapter VI, Public Facilities). The airport has no tower, nor is it regularly staffed.

The airport primarily serves the needs of the wine industry, the geothermal industry and recreational flyers, but is occasionally used as back-up for the Sonoma County Airport during foggy weather and for medical emergencies. The airport currently has 55 to 57 based-aircraft, with room to accommodate up to 12 more.

Expansion of the airport is constrained by the topography of the area and limited by water and sewage disposal capacity.

TAXI SERVICE

The only taxi service in the Healdsburg area is provided by Russian River Transport.

FINDINGS

- Generally, the existing city streets appear to be carrying traffic volumes which are well within their traffic-carrying capacity. However, some residents feel that the present levels of congestion and delay at several locations are unacceptable. Future development could aggravate existing traffic conditions depending on the location, amount, and type of development involved. This is especially true along Healdsburg Avenue and its major intersections.
- Similarly, while there appears to be an adequate parking supply to accommodate the existing parking demand, there are some areas where peak demand levels have created perceived parking problems. This is especially true near the Plaza. Future development in this area could aggravate existing parking conditions, unless additional parking facilities are provided.
- The existing street network has problems which will not easily be overcome. The discontinuity of streets creates problems for north-south travel within the city. Continuity in the street system is limited between portions of the city lying north and south of Powell Avenue. University Street and Healdsburg Avenue provide the only direct

connections at this time. As a result, future development in the northern part of the Urban Service Area will add a significant amount of traffic to Healdsburg Avenue.

- There are also limited opportunities to extend the existing streets to areas likely to develop north of the existing city. For the most part, subdivisions in this area include street patterns that are not adequate to accommodate significant levels of through traffic. This is especially true of Sunnyvale Drive and University Street.
- Another circulation limitation is the lack of connection between Powell Avenue and South Fitch Mountain Road east of University Avenue. Additionally, the lack of alternatives to South Fitch Mountain Road for access to the southeastern portion of the city has prompted calls for the eastward extension of Tucker Street and possibly Piper Street.
- The extension of Vine Street to the north to provide an alternative to Healdsburg Avenue for north-south travel through the central business district has generated considerable controversy. The City has acquired some right-of-way to the north and at least three possible alternative alignments for an extension have been identified. One would connect to Piper Street, thus bypassing a heavily used section of Healdsburg Avenue. A second would add a connection from this new Vine-to-Piper connection to Grove Street, thus providing a continuous route from Mill Street to Dry Creek Road. A third alternative would extend Vine Street to Grant Street, cross the railroad tracks and tie into Healdsburg Avenue at Powell Avenue.
- It has also been suggested that additional freeway ramp connections to Highway 101 could improve access to and from the city and divert some traffic from Healdsburg Avenue. South oriented ramps (northbound off and southbound on) have been suggested at both the Mill Street/Westside Road interchange and at Chiquita Road. The Mill/Westside interchange presently has north-oriented ramps, but no south-oriented ramps. There are presently no ramps at the Chiquita Road overcrossing. The potential technical difficulties associated with the construction of ramps have not yet been explored in detail.
- Elimination of existing safety hazards related to limited corner sight distances at many intersections within the city has also been suggested. Available statistics on traffic collisions within the city show a propensity for broadside-type accidents and right-of-way violations, both of which are frequently related to limited sight distance. This problem is more an operational issue than a planning issue. Future development, however, should be required to provide for adequate sight distance at intersections.
- The constraints which the city's particular setting and characteristics place on providing solutions to the issues discussed above include the following:
 - the difficulty and cost of widening narrow streets in already developed areas;

- the limited alternatives for effectively increasing the north-south traffic-carrying capacity of the street network;
 - the difficulty and cost of making street extensions and connections because of natural and man-made physical barriers, such as the Northwestern Pacific Railroad tracks and the Russian River;
 - the limited number of "gateway" access points to the city, including freeway access points, and the potential technical problems of adding ramps; and
 - the lack of adequate, undeveloped sites for additional public parking facilities in areas of highest existing and future parking demands.
- Low ridership and low fare box receipts are likely to continue to plague the Healdsburg Transit Service. The City's bus system is providing an important but expensive service to a small number of Healdsburg residents. The City must find ways to increase ridership on and income from its present fixed route system, change the nature of service to meet rider and income needs, or discontinue the service entirely.
 - While the three bus systems are linked by several common stops, it has been suggested that transit riders might be better served if a common bus terminus were established in the Dry Creek Road area. Perhaps a permanent shelter could be erected. Greyhound's present route would have to be modified by eliminating the present loop it makes in the downtown area or by providing stops both in downtown and along Dry Creek Road.
 - There are no known plans by Northwestern Pacific Railroad to change its service through Healdsburg. Because it is limited to freight service and only a few trains per week, Northern Pacific's rail service has few implications for the General Plan.
 - An issue of some significance, however, is the periodic blocking of key thoroughfares and the delays this could mean for fire and emergency response. As land to the south within the city limits develops, there will be increasing demand for fire and emergency services. Delays caused by trains could result in unacceptably long response times to the area.
 - While the city has plans for adding and improving structures at the airport (see discussion in Chapter VI, Public Facilities), airport operations appear to pose no significant issues for the General Plan.

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GLOSSARY

Cross-Section - The section view across the width of a street, which usually indicates the width of the street, the number of lanes, the width of any median, and the width of sidewalks, bicycle lanes, and planter areas.

Grade-Separated Crossings - An overcrossing or an undercrossing which physically separates the traffic flows on two transportation facilities so that they do not intersect.

Grade Separation - The physical separation of the grades (levels) of two roadways or a roadway and a railway; typically accomplished with an overpass bridge structure.

Level of Service - An indication of the peak hour traffic conditions which are experienced on a given street with the particular traffic-carrying capacity of the street and a given amount of traffic using the street; this is typically defined by a range of volume to capacity ratios, designated by the alphabetic characters A, B, C, D, E, and F.

Right-of-Way - The width of publicly dedicated streets, including the pavement, sidewalks, and planting area; the width between property lines on either side of the street.

Traffic-Carrying Capacity - The maximum amount of traffic which a street can carry in a given amount of time without reaching unstable (or forced flow) traffic conditions; usually expressed as "vehicles per hour."

Trip - A one-way vehicle movement that either begins or ends at the location being considered; thus, a vehicle which leaves a home and later returns to it would account for two trips under this definition.

Volume to Capacity Ratio - The ratio of the volume of traffic carried by a street to the street's traffic-carrying capacity; used to determine the applicable level of service for a street at a given traffic volume level; abbreviated as V/C.

CHAPTER VI

PUBLIC FACILITIES AND SERVICES

INTRODUCTION

City development is dependent on a complicated network of public facilities and services. Each type of service has a unique set of constraints and must adapt to growth differently. The City of Healdsburg is unique in that it provides most of the key facilities and services required to support growth.

This chapter reviews key public facilities and services, focusing primarily on water, sewage collection and treatment, drainage, electrical distribution, police, fire, and schools.

Transportation facilities and services are discussed separately in Chapter V and parks and recreation are discussed in Chapter VII.

GENERAL GOVERNMENT

Healdsburg is a general law city, operating under the council/manager form of government. The City Council is composed of five members elected at large for four year alternating terms. The City Manager is appointed by the City Council and directs the services and functions of city government.

The City Council has created a number of boards and commissions with specific decision making responsibilities:

Planning Commission

Five-member commission advises the City Council on land use and zoning matters and reviews and issues use permits.

Recreation and Parks Commission

Five-member commission advises the City Council and staff on the acquisition, development and operation of park and recreation facilities and on the management of recreation programs.

Design Review Commission

Five-member commission advises the Planning Commission and City Council on urban design matters and reviews and issues design review permits for specified projects.

Appeals Board

Five-member commission reviews and acts on appeals to City Building Official decisions.

Airport Commission

Five-member commission oversees the development and operation of the Healdsburg Municipal Airport.

Museum Board of Trustees

Seven-member board sets policy for the Healdsburg Museum and administers the Museum's acquisition fund.

Healdsburg Public Improvement Corporation

Non-profit corporation with a five-member board provides an alternative technique for financing development of various public improvements.

Senior Citizens Advisory Commission

Five-member commission advises the City Council on programs and facilities for senior citizens.

Traffic Safety Commission

Five-member commission reviews traffic safety complaints and advises the City Council on circulation system improvements such as stop signs and on-street parking prohibitions.

The City Council also acts as the Redevelopment Agency Board, with the City Manager serving as executive director of the Agency.

The administration of the City is organized into several departments: City Management, Finance, Public Works (including Planning and Building), Parks and Recreation, Police and Fire. In 1986, the City employed 79 full-time employees, 32 regular part-time, 46 other part-time, and 19 seasonal workers.

City operations are concentrated in two locations. City Hall, located at 126 Matheson Street, houses city management staff, finance staff, parks and recreation staff and the Police Department. The City's only fire station is located next to City Hall at 238 Center Street. The Public Works Department, Electric Department, and all maintenance services are located at the City's corporation yard at 550 Westside Road.

Figure VI-1 shows the location of these and other public and quasi-public facilities.

WATER SERVICE

The City of Healdsburg owns and operates the major water system in the Planning Area. The Fitch Mountain area is served by the Fitch Mountain Water Company and there are several small water systems in outlying areas. Figure VI-2 depicts the key elements in the City's water system.

The City's water system includes two well fields, several pumping plants, a number of storage tanks and reservoirs and a network of distribution lines.

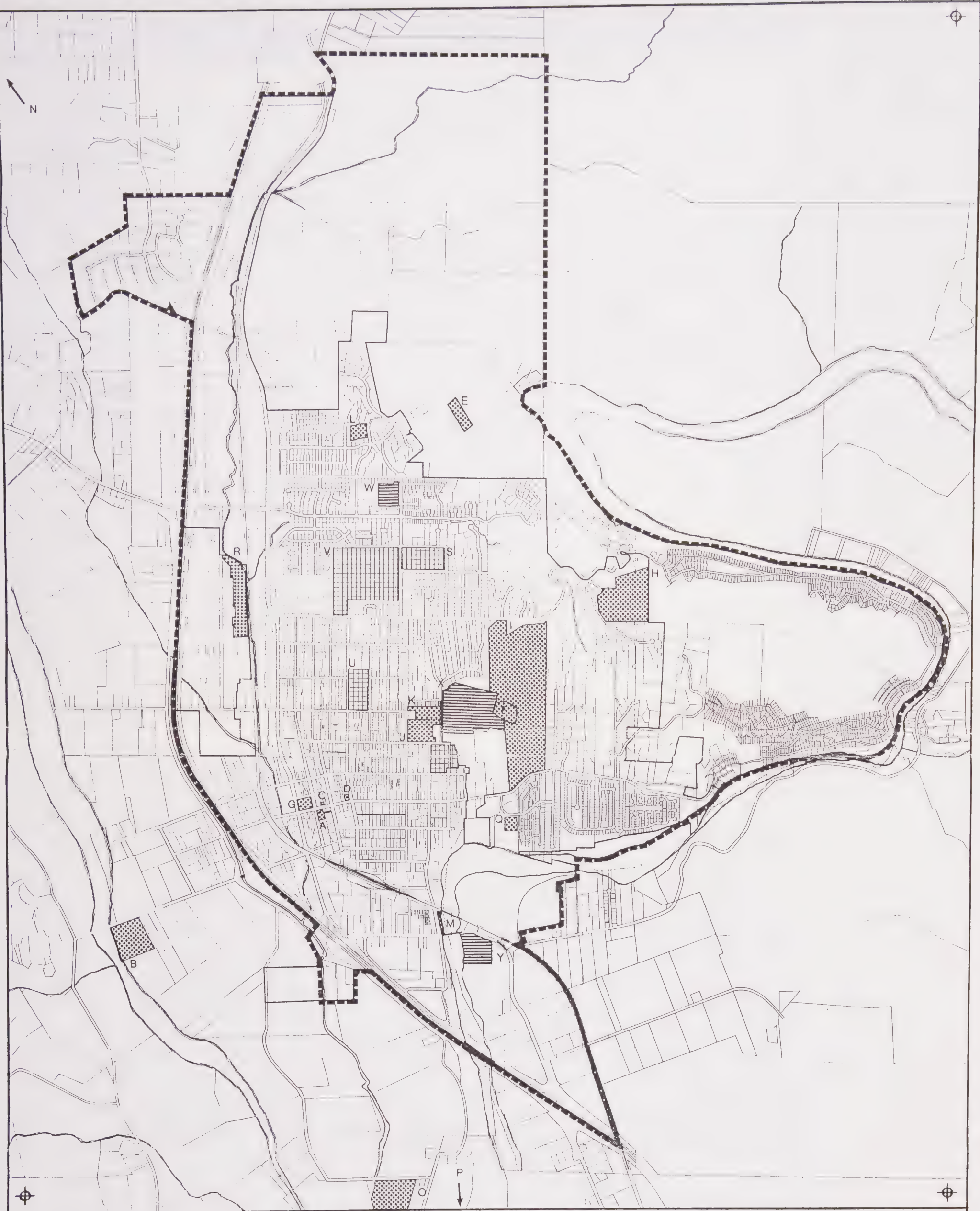


Figure VI-1. MAJOR PUBLIC & QUASI-PUBLIC FACILITIES

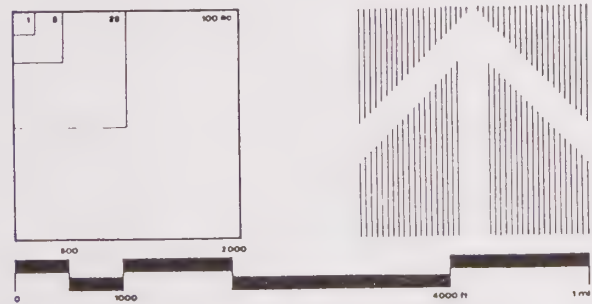
- | | | |
|--|--|---|
| <p>CITY FACILITIES [Symbol: Stippled Box]</p> <ul style="list-style-type: none"> A. City Hall Complex B. City Corporation Yard C. Senior Center D. Library E. Iverson Reservoir F. Oak Mound Reservoir G. Plaza Park H. Villa Chanticleer I. Tayman Park/Golf Course | | <p>PUBLIC SCHOOLS [Symbol: Vertical Lines]</p> <ul style="list-style-type: none"> S. Fitch Mountain Elementary T. Healdsburg Elementary U. Healdsburg Junior High V. Healdsburg High |
| <ul style="list-style-type: none"> J. Recreation Park K. Giorgi Park L. Gibbs Park M. Railroad Park N. Municipal Airport O. Sewage Pump Station P. Sewage Treatment Plant Q. Electrical Substation R. Detention Basin | | <p>OTHER FACILITIES [Symbol: Horizontal Lines]</p> <ul style="list-style-type: none"> W. Healdsburg General Hosp. X. Oak Mound Cemetery Y. Healdsburg Memorial Beach |

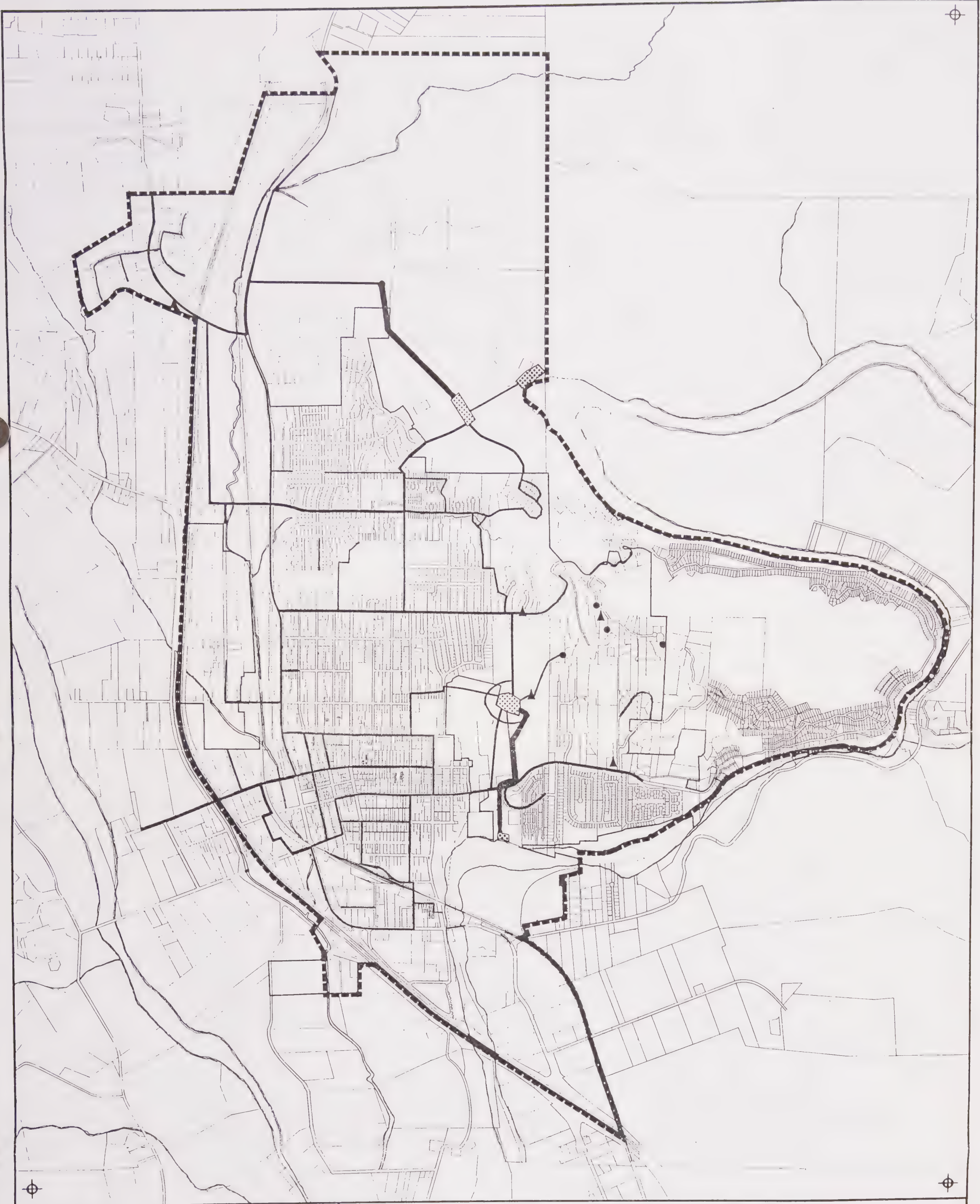
Source: City of Healdsburg, 1986

HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES





HEALDSBURG CALIFORNIA

GENERAL PLAN

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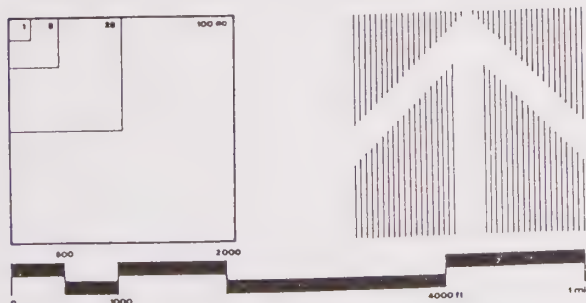









Figure VI-2. WATER SYSTEM

-  Well Field
-  Tank/Reservoir
-  Pump

-  16" Water Line
-  12" Water Line
-  10" Water Line
-  8" Water Line

Sources: City of Healdsburg Public Works Department, 1985;
Consultant Team, 1985

The City of Healdsburg derives its water from two well fields underlying the Russian River. A third City-owned well field on West North Street in the Dry Creek watershed which produces water of an unacceptable quality in terms of taste, and has now been abandoned. The City is considering developing a new well field at the City's corporation yard on Westside Road.

The first of the City's operating well fields, known as the Gauntlett well field, is located near the Russian River in the Digger Bend area. The City has water rights in this field to three cubic feet per second (cfs), or 58.1 million gallons per month. The four wells in the field are capable of pumping 2,400 to 3,600 gallons per minute. Water from this source is pumped to the 2.9 million gallon Iverson Reservoir.

The second of the City's main well fields, known as the Fitch Mountain well field, is located next to the Russian River at the City's old corporation yard on South Fitch Mountain Road. In this field the City has water rights to four cfs or 77.5 million gallons per month. The field's three wells are capable of delivering 2,400 to 3,600 gallons per minute to the 1.75 million gallon Oak Mound Reservoir in Tayman Park.

Including the water rights to one cfs in the Dry Creek area, the City has total rights to eight cfs, which amounts to 155.1 million gallons per month. The City of Healdsburg currently (1986) is using only 95.7 million gallons of its 155.1 million gallon water rights during the peak month, or approximately 71 percent of its entitlement.

A number of pumps boost water from the well fields to ten reservoirs and tanks, located in eight different locations. Beside providing combined storage capacity of five million gallons, the tanks and reservoirs, due to their higher elevations, create water pressure for users.

The largest reservoirs are the Iverson Reservoir (2.9 million gallons) and the Oak Mound Reservoir (1.75 million gallons). The Sunset Tank, located at the end of Sunset Drive at a base elevation of 523 feet, is the highest tank and has a capacity of 75,000 gallons. Two other tanks of 10,000 gallons each, called the Sauers Tanks, are located at approximately the same elevation, but are used only in emergencies. All of these tanks are supplied by the Fitch Mountain Pump Station, located at Hassett Lane, and/or the Cadoul Pump Station. The Cadoul Pump Station is adjacent to the 55,000 gallon Cadoul Reservoir, off Sunset Drive at an elevation of 460 feet. It in turn is supplied by the Armory Pump Station on Powell Avenue which draws its water from the Iverson Reservoir. A 5,000 gallon storage tank at Villa Chanticleer and the 40,000 gallon Schwartz Reservoir tank on Revel Road are both out of service.

At higher elevations, the Sunset Tank and Sauers Tanks can supply fire flows of up to 1,000 gpm by a combination of pumping and use of storage. However, storage capacity is insufficient to maintain fire flows for two hours. Based on Insurance Service Office (ISO) guidelines, the City has set minimum acceptable fire flow rates at 1,500 gpm for single-family dwellings, 2,000 gpm for multifamily dwellings and 3,500 gpm for commercial areas. The flow requirements must be maintained over a two hour period. The City requires any building of over 5,000 square feet to have a sprinkler system.

The City's main water lines consist primarily of 6-, 8- and 12-inch pipes. The Oak Mound Reservoir supplies the southwesterly portion of the city through 8- and 10-inch mains. This area can also be served through a 12-inch main in emergencies from the higher pressure Iverson Reservoir. The northern area of the City is served by both 12- and 16-inch mains from the Iverson Reservoir. Areas to the north would likely be served by a combination of Iverson Reservoir and additional wells and at least one new reservoir. Many water lines in downtown Healdsburg are only four inches in size and incapable of producing adequate fire flow rates. In 1980 the City initiated a 10-year program to replace many of the four inch lines in areas where there is insufficient fire flow with a system of looped 12-inch mains.

Currently (1986), the City delivers water to 3,691 residential water services, 993 commercial connections, 62 industrial connections, and 48 services to public uses. Services outside the city limits include one house near Villa Chanticleer, and primarily residential customers on Westside Road, Grove Street, West North Street, Kinley Drive, Scenic Lane and Eagle Rock, for a total of 75 services and 6.6 million gallons per year. The City also sells 9.0 million gallons per year to the Fitch Mountain Water Company.

During Fiscal Year 1985-86, residential users in Healdsburg consumed 290.5 million gallons; industrial users and commercial users, 318.0 million gallons; public users, 3.9 million gallons; and 15.6 million gallons were sold to users outside the city limits.

Water use fluctuates over the course of the day as well as seasonally. High demand periods during the day occur during early morning hours and early evening hours. Demand for water rises sharply during the summer months as residents water lawns and fill swimming pools. Currently (1986), water demand averages 2.0 million gallons per day, or 60 million gallons per month. During January 1986 demand was down to a low of 39.1 million gallons per month; during July 1986 demand peaked with 95.7 million gallons pumped.

It should be noted that metered water currently amounts to only about 81 percent of the total water pumped. Although no audit has been conducted to account for this 19 percent water "loss," it is likely a result of a combination of water use from fire hydrants, leaking pipes and inefficient water meters. Healdsburg's 19 percent water loss is twice the statewide average of 9.5 percent unaccounted for water.

On a daily basis, averaged over the year, residents use about 100 gallons a day per capita, or approximately 240 gallons per day per residential unit. Industrial and commercial use varies greatly depending on the type of operations.

The City's water system is financed by monthly service charges, annexation fees and development fees. Currently (May 1987), City annexation fees for water run \$388 per acre. The City charges a \$1,500 per residential unit water development fee. Water fees for commercial and industrial uses are based on projected use.

Water in the unincorporated Fitch Mountain area is supplied by the privately-owned Fitch Mountain Water Company. The system presently has 327 service connections, all but one of which are residential.

The Fitch Mountain water system is actually composed of three separate systems. The McDonough Heights system (with 40 service connections) receives all of its water from two tie-ins with the City of Healdsburg water system. There is also one tie-in with the City system on North Fitch Mountain Road that supplies water to one service connection.

The Camp Rose system (with 110 service connections) derives its water from a spring and a well, with a combined capacity of 87 gpm. The Del Rio system (with 177 service connections) also receives its water from a spring and a well, with a combined capacity of 300 gpm. All spring and well water is chlorinated with sodium hypochlorate.

The system also includes eight storage tanks ranging in size from 1,000 to 11,000 gallons, with a combined storage capacity of 59,000 gallons.

Many of the water lines in the Fitch Mountain Water Company system were installed 50 years or more ago and have developed leaks. Booster pumps are required to maintain pressure in portions of the system. One booster pump in Del Rio must run 24 hours a day to maintain static pressure at faucets along Redwood Drive.

The Fitch Mountain Water System is plagued by numerous deficiencies, including inadequate storage capacity and water pressure for fire protection, frequent and sometimes long periods of water outages, and poor water quality. The State Health Department has directed the Fitch Mountain Water Company to make improvements to the system and to develop a new source of supply for the Camp Rose system as a first priority.

With a loan from the State, the owner of the Fitch Mountain Water Company made a number of improvements to the system in 1985. Many problems, however, still remain.

At the request of residents in the Fitch Mountain area, the County of Sonoma undertook a study of the Fitch Mountain Water Company system through a contract with Winzler and Kelly, Consulting Engineers, of Santa Rosa. The study identified measures costing approximately \$2.1 million for upgrading the system and alternatives for managing the system. Management alternatives identified in the report include acquisition by County Service Area No. 24 or creation of a county water district.

In addition to the Healdsburg and Fitch Mountain water systems, several small water systems have been developed in the area.

Rio Lindo Academy Water Company.

At Rio Lindo Academy, located across the Russian River at Digger Bend, a well and a reservoir with a storage capacity of 750,000 gallons serve approximately 40 connections.

Brandt Water System.

This small system obtains its water supply from a well along the Russian River near Bailhache Avenue. The system serves only six residences.

Post Improvement Club Water System.

The water source for this small system is a well located along the Russian River near Toyon Drive. The system serves only a few residences.

Haub Heights Mutual Water Company.

A well located north of the city limits supplies water for this small company. The system has a storage of 10,000 gallons and serves only four residences.

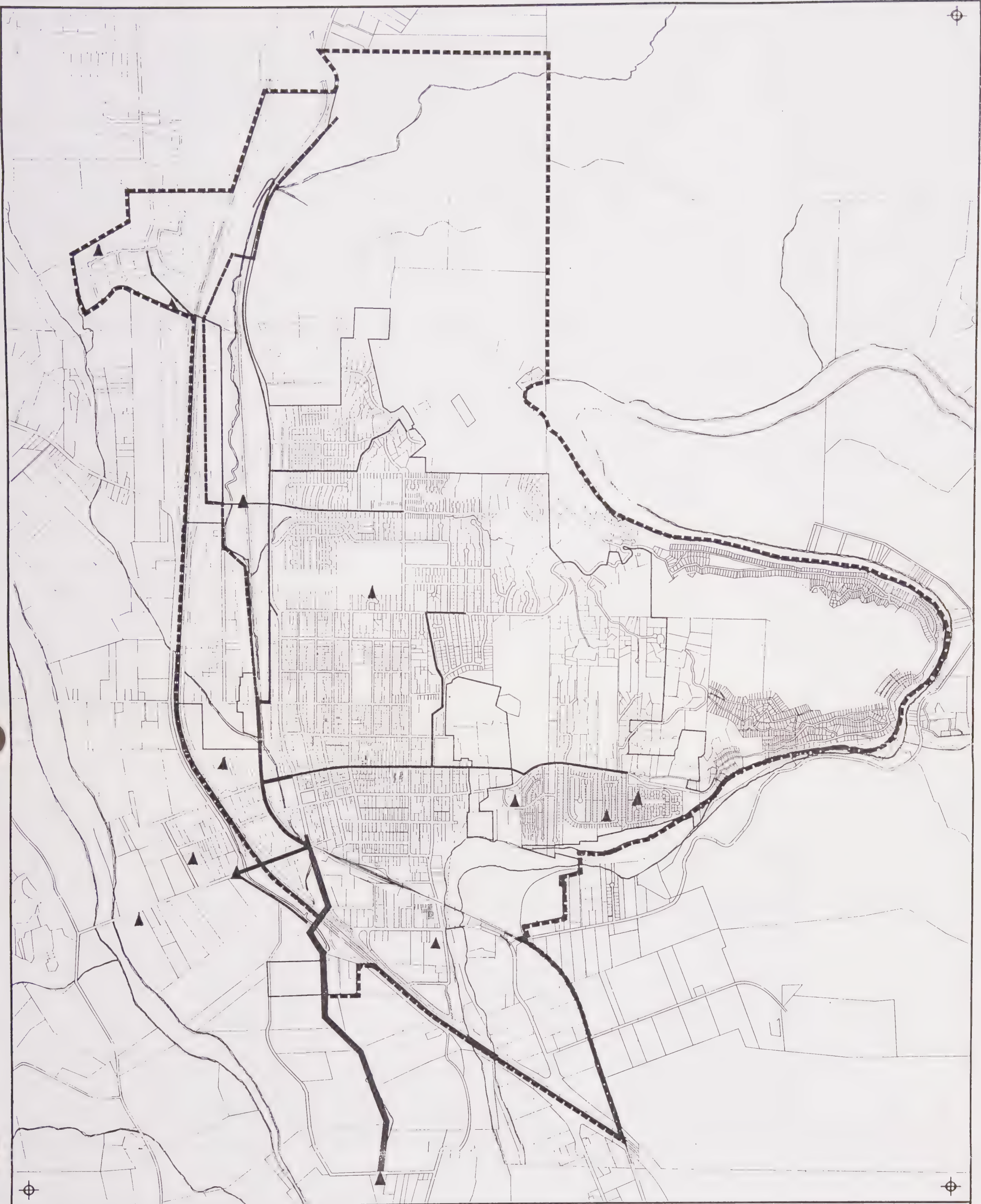
SEWAGE COLLECTION AND TREATMENT

The sewage collection and treatment system in Healdsburg is owned and operated by the City of Healdsburg. The system comprises a network of collector lines of various sizes, 11 small pump stations in various locations throughout the city, a major pump station located on Magnolia Drive and treatment facilities on Foreman Lane south of Dry Creek. Figure VI-3 depicts the major elements of the sewage collection and treatment system.

The overall capacity of the system is determined by the capacities of individual components of the system and the characteristics of wastewater flows through the system.

On average, residential users generate 85 gallons of wastewater per capita per day, or about 200 gallons per day per residential unit. Industrial uses in Healdsburg typically generate an average of 610 gallons per acre per day. The largest industrial flows into the City's system are generated by wineries and the Sunsweet fruit drying plant. Flows into the sewer system, however, fluctuate greatly over the course of the day and according to the season. During the day for example, total flows tend to peak during the early morning and early evening hours, corresponding to the higher levels of domestic water usage during these times. Daily peak flows are roughly two and a half times the average daily flows. For the purposes of this report, peak flow wastewater generation rates are assumed to be 450 gallons per day per residential unit, and 1,525 gallons per acre per day for industrial commercial uses. In terms of total wastewater flow, residential users account for about 67 percent, commercial users about eight percent and industrial users about 25 percent.

Flows into the system also fluctuate between seasons. Flows during the rainy season (wet weather) are substantially higher than during "dry weather" due to inflow and infiltration into the system. Inflow is water channeled into the sewage collection system by storm water collection systems. Infiltration on the other hand is water that leaks into older sewer lines from the surrounding ground. Currently (1985-86), total dry weather flows average about 1.0 mgd; total wet weather peak flows average about 2.5 mgd, although they have reached as high as 8.0 mgd.



HEALDSBURG CALIFORNIA

GENERAL PLAN
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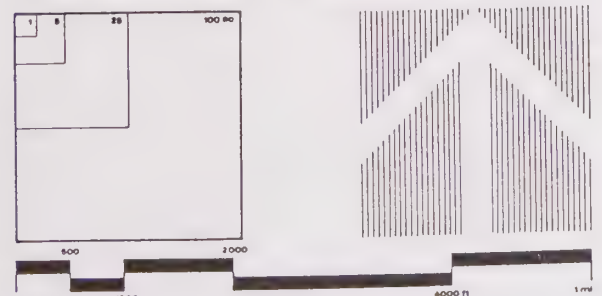


Figure VI-3. SEWER SYSTEM

- ▲ Pump
- 8"-10" Sewer Main
- 12"-15" Sewer Main
- 16"-24" Sewer Main
- 33" Sewer Main
- Proposed Sewer Main

Sources: City of Healdsburg Public Works Department, 1985;
Consultant Team, 1985

Since 1966, when a major study of the City's sewage collection and treatment system was conducted (Yoder Associates, 1966), the City has installed a number of new sewer lines and replaced or repaired many lines. In the last two years alone, some 14,000 feet of sewer lines have been repaired. The 12-inch line along Healdsburg Avenue to North Street has been slip-lined. The North Street line has been replaced with 15- and 18-inch lines. A 24-inch line has been placed in Vine Street from Mill to North Street. The replacement of the 10-inch main north of North Street, as recommended in the Yoder report, has not been accomplished and the capacity of the existing line is 1.20 mgd in the area south of March Avenue. The line is limited to a flow of 0.90 mgd north to Terrace Drive and to 0.84 mgd from there north to Chiquita Road. North of Chiquita Road the line is eight inches and has a flow of 0.54 mgd.

Peak flows from Simi Winery and Boise Cascade generate flows into this line of 0.17 mgd, leaving additional capacity of 0.37 mgd. To accommodate development in the area north of the existing city limits likely to develop and to provide additional capacity for development in the Grove Street area and in the industrial area north of Dry Creek Road, a new 15-inch line will likely be necessary. (See Figure VI-3.) The line could extend north of Chiquita Road then head east to Healdsburg Avenue or continue north of Simi Winery then head east to serve the area east of Boise Cascade.

The Old Redwood Highway area in the southern part of the city is unsewered, and sewage treatment is presently limited to individual septic systems. Major constraints to providing sewer service in this area is the need to span the Russian River with a major trunkline and to provide a pumping facility.

While sewer collection systems are designed generally on a gravity flow principle, pumping is required in several areas. Healdsburg's sewage collection system includes 11 small pump stations located at Chablis Road, Dry Creek Road at the railroad, Moore Lane, Hendricks Street, Garden Court, Mill Street, Orchard Street, Pinon Drive, Kennedy Lane, Fitch Mountain Road, Heron Drive, and the corporation yard. Because they are expensive to maintain, use of pumping stations should be avoided and existing ones eliminated wherever possible. The pump station at Dry Creek Road could be eliminated if the 15-inch line described above is constructed.

All the city's sewage must pass through a major pumping station on Magnolia Drive before reaching the treatment facilities. In the past, peak wet weather flows have exceeded the capacity of this pumping station and raw sewage has been allowed to bypass the pumping station and treatment facilities and flow into Foss Creek, ultimately into the Russian River. In 1982, the Regional Water Quality Control Board issued a cease and desist order to prevent further such occurrences. With the assistance of an EPA Clean Water Grant, the City in 1984 increased the pumping plant's capacity to 6.2 mgd and added an additional pressure main to the treatment facilities. This, along with sewer line improvements to reduce inflow and infiltration, should solve the pump capacity problem for the foreseeable future.

The system's treatment facilities are located on Foreman Lane south of Dry Creek. The facilities include two aerated lagoons, three oxidation/

sedimentation ponds, with disinfection and discharge into a 300-acre percolation pond (an old gravel quarry pit). The percolation pond is used under agreement with Basalt Rock Company with the understanding that Basalt will construct a 25-acre percolation pond on property to be deeded to the City of Healdsburg when mutually agreed. The ponds are protected from a 100-year storm by dikes at elevations of 89 to 92 feet, or three to six feet above flood level.

The treatment facilities presently have the capacity to treat flows of 1.1 mgd, but planned improvements would increase this capacity to 1.4 mgd. The plant is designed to be expanded to 2.2 mgd ultimately. Expansion of capacity will be accomplished by the addition of aerators and placement of baffles within the ponds, addition of stabilization ponds and addition of possible primary clarifiers.

As a consequence of Santa Rosa's discharge of untreated wastewater to the Russian River during the winter and spring of 1985, the North Coast Regional Water Quality Control Board is expected to promulgate new criteria for discharges into the Russian River Drainage Basin. These new criteria may well necessitate improvements to Healdsburg's treatment system.

Sewer service is financed by a combination of monthly service charges, annexation fees and development fees. Currently, City annexation fees for the sewer system run \$470 per acre. The City charges a \$900 per residential unit development fee for new sewer improvements. Sewer fees for commercial and industrial users are based on projected use.

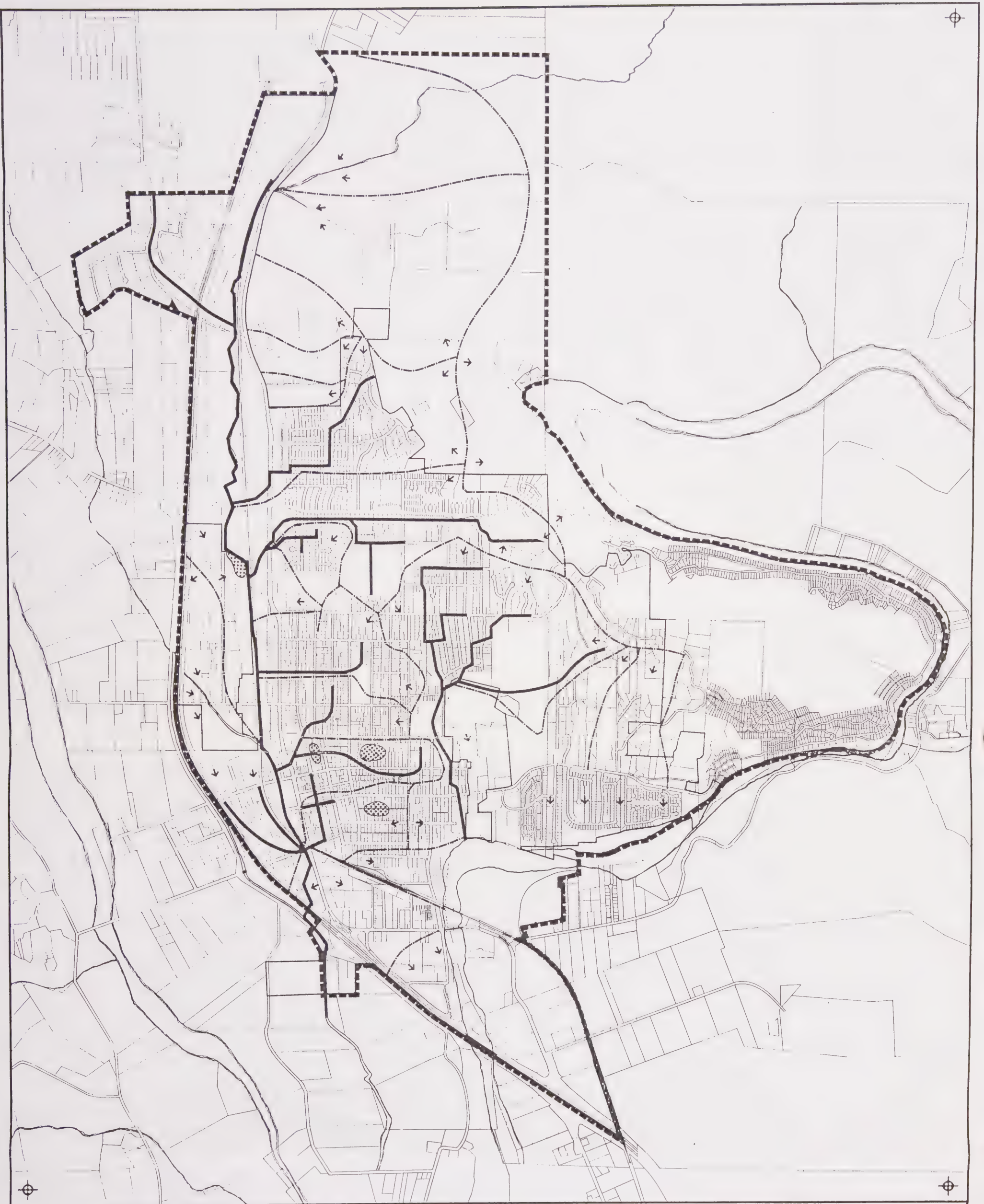
STORM DRAINAGE

Nearly all the area within the current city limits and more than half of the Urban Service Area falls within the drainage area of Foss Creek. A portion of the Urban Service Area to the north drains to Alexander Valley and the rest of the Urban Service Area drains to the Russian River.

Foss Creek, which originates in the north part of the Planning Area east of Boise Cascade, parallels the Northwestern Pacific Railroad tracks through most of the city. Several swales to the east of Healdsburg Avenue contribute flows to Foss Creek and over time have been improved with storm drains.

When the capacity of storm drains is exceeded in the north part of the City, the topography is such that streets can carry storm drain overflows to Foss Creek without causing serious problems. In central Healdsburg, however, there are a number of problems due to the relatively flat topography, the old and undersized drainage system and the lack of continuous street drainage to Foss Creek. In a number of areas, as shown in Figure VI-4, storm water collects in ponds when it rains. In central Healdsburg the Redevelopment Agency has undertaken a number of improvements to the drainage system.

Because the Foss Creek channel has become restricted over the years and because of increased runoff due to development in its drainage area, the City has found it necessary to construct retention basins along the stream corridor. The first of these basins was constructed in 1984 with others to be developed as needed. These retention basins will provide a temporary



HEALDSBURG CALIFORNIA

GENERAL PLAN
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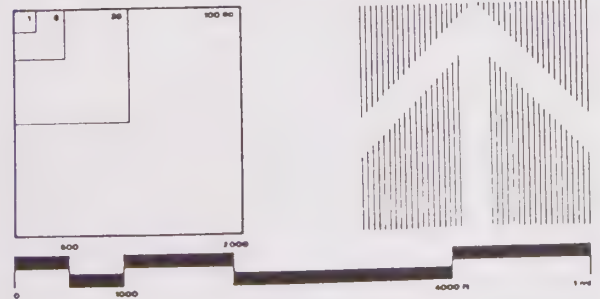


Figure VI-4. STORM DRAINAGE

- Storm Drain
- - - Drainage Boundary
- ↓ Direction of Flow
- ▤ Ponding Area

Sources: City of Healdsburg Public Works Department, 1986;
Consultant Team, 1986

storage area for high storm water runoff, so that as a storm passes, the stored water will be allowed to slowly drain out of the basin back into Foss Creek. The first of these basins constructed on Foss Creek is east of Grove Street and south of Dry Creek Road. The basin has storage capacity of 49 acre-feet, with an inflow of 1,150 cubic feet per second (cfs) and an outflow of 400 cfs. At least one additional basin with a capacity of 25 acre feet will likely be necessary as development occurs in the upper drainage area of Foss Creek. The most likely location for this basin is in the area just east of Healdsburg Avenue where it crosses Foss Creek.

While Norton Slough used to have a large drainage area, the construction of Highway 101 cut it off from most of this area, and the lower portion of Norton Slough now helps relieve Foss Creek flooding by acting as a natural retention basin. Water from Foss Creek backs up into Norton Slough temporarily while the peak of the storm passes and then slowly drains out. No calculations of its storage capacity have been made.

Two 48-inch storm drains have been placed in Vine Street to North Street. One will be extended to Norton Slough and Foss Creek. The other will be extended to the Dorahl property to relieve flooding.

The easterly portion of the Urban Service Area drains to the Russian River. In this area slopes are steep and drainage is rapid; only small localized drainage problems are found in the area.

ELECTRICITY

Healdsburg is one of a few cities in California that owns and operates its own electrical distribution system. It is a member of the Northern California Power Agency, which buys and generates electrical power for its members to distribute. NCPA energy is derived from two geothermal powerplants at the Geysers and the federal government's Central Valley Project. An NCPA hydroelectric project is also under construction in Calaveras County. Through the NCPA network, the City is able to purchase electrical power at a cost lower than PG&E rates, and the City residents share in the savings. Currently, City rates are five percent lower than PG&E's rates for residential users, and seven percent lower for commercial and industrial customers.

Although the City purchased a portion of its electricity from PG&E until the end of 1985, NCPA now provides for all of Healdsburg's energy needs. As Healdsburg's energy needs continue to grow, the City may need to once again purchase electricity from PG&E to supplement its allotment from NCPA. This could happen as soon as 1993.

The Healdsburg electrical system is linked to the external power grid at a substation at the city's old corporation yard. The substation is currently operating at about one-third its capacity. A main feeder line extends from the substation south along First Street and south to the industrial area along Healdsburg Avenue. A second feeder extends north into the Tayman Park/Golf Course, then westerly along Piper Street and north along Brown Street and then along Powell Avenue. A loop is formed that includes Powell Avenue, University Street, Terrace Boulevard and Healdsburg Avenue. An

extension leads north along Healdsburg Avenue and is anticipated to be looped to the east as development occurs.

The City's electrical system currently (July 1986) has approximately 4,140 service connections: 3,332 are residential customers, 673 commercial, 58 industrial and heavy commercial, and 47 public. Table VI-2 shows both the number of electricity customers and the amount of electricity each type of use consumed for FY 83-84 through FY 85-86.

Residential units on average consume approximately 5,300 kilowatt hours of electricity a year. Single-family homes consume more than the average, and apartments and mobilehomes less than the average. Electricity use by commercial and industrial establishments varies by the type of operations.

TABLE VI-1

ELECTRIC UTILITY CUSTOMERS AND SALES
City of Healdsburg
FY 83-84 to FY 85-86

<u>Number of Customers</u>	<u>1983-84</u>	<u>1984-85</u>	<u>1985-86</u>
Residential	3,062	3,185	3,332
Industrial and Heavy Commercial	52	57	58
Commercial	672	674	673
Municipal	46	46	47
Outside Lighting	<u>27</u>	<u>28</u>	<u>30</u>
Total	3,859	3,990	4,140
<u>Energy Sales (Megawatt-Hours)</u>			
Residential	16,973	17,825	18,547
Industrial and Heavy Commercial	28,008	33,045	20,540
Commercial	7,991	9,045	8,689
Municipal	1,081	1,117	1,021
Outside Lighting	<u>465</u>	<u>485</u>	<u>540</u>
Total	54,518	61,517	49,337

Source: City of Healdsburg

The largest industrial electricity user was Fairchild before it closed down in June 1985. Basalt Rock Company, Simi Winery and Sunsweet are also major electricity users. These last three have seasonal operations, with periods of highest usage occurring in August, September and October. Table VI-2 shows that slightly more than half of the electricity sold in FY 1983-84 was purchased by industrial and heavy commercial users. Only 31 percent was used by residential users.

The average monthly, city-wide peak electricity use is 12 megawatts per month, with the maximum being 14 megawatts. The peak demand period of the day during winter is between 9:00 a.m. and 11:00 a.m.; peak summer demand occurs at 6:00 p.m.

Electric service in Healdsburg is supported by monthly user charges as well as by annexation fees and development fees. The City presently charges \$689 per acre on annexations to support improvements to the electrical system. At the time of development, the City charges \$275 per residential unit plus the actual cost of upgrading the electrical distribution system or installation of additional transformers.

LAW ENFORCEMENT

The Healdsburg Police Department is located adjacent to City Hall at 126 Matheson Street. The Police Department employs 16 sworn officers, three reserve officers, five full-time dispatchers and two police aids (one working as a community service officer and one in part-time parking enforcement). The force of sworn officers currently (September 1986) includes:

- Chief of Police
- 1 full-time investigator
- 1 lieutenant
- 3 field supervisors (one corporal and two sergeants)
- 9 patrol officers
- 1 traffic officer

In Healdsburg the ratio of sworn officers to population works out to 1.9 per 1,000 population, which is generally considered a good ratio in smaller cities. The patrol officers work four 10 hour shifts per week, and at least two patrolmen are on duty at all times. The Police Department is able to maintain an average response time of one and a half to two minutes in emergencies throughout the City.

The Healdsburg Police Station was built in 1957 and expanded in 1978-79. According to the Police Chief, the facility is presently being used beyond its design capacity, lacks adequate interview rooms, and is poorly laid out from a security standpoint.

Law enforcement in the unincorporated area is the responsibility of the Sonoma County Sheriff's Department. The Sheriff's Department maintains a beat centered in the Windsor area which includes the unincorporated Healdsburg area. Under a mutual aid agreement, however, the Healdsburg Police Department responds frequently to calls in the unincorporated Grove Street and Fitch Mountain areas. Highway 101 is patrolled by the California Highway Patrol.

FIRE SERVICES

The Healdsburg Fire Department is located next to City Hall at 238 Center Street. The Fire Department currently (September 1986) employs a full-time staff of eight and has City Council authorization to maintain a reserve force of 27. The Fire Department is also hiring two 40 hour a week temporary firefighters to fulfill obligations under the new one-year contract with Sonoma County. The Department's equipment includes three in-service pumpers, one reserve pumper, one brush truck, one rescue truck, and one staff/ utility vehicle.

The Healdsburg Fire Station was built in 1960. While the station is still adequate in most respects, the Fire Chief has cited several deficiencies, including lack of training facilities, insufficient room outside around the station, lack of parking, particularly for reserve officers during an alarm, and lack of space for office expansion in the future.

The Fire Department maintains a minimum force of two firefighters at all times. All full-time firefighters work 24-hour shifts, except the fire chief who works a 40 hour week. Regular and reserve firefighters are alerted to alarms by radio pagers.

In addition to fire suppression, the Fire Department's services include building inspection fire prevention, public education, weed abatement, disaster preparedness, emergency medical services, fire hydrant maintenance, public assistance, and hazardous materials response.

Table VI-2 summarizes the Fire Department responses by type for the 1981-85 period. The table reveals that nearly 40 percent of the Fire Department's calls are medical emergencies. The table also shows that the number of alarms for structure fires within the city was down significantly in 1984 and 1985 from 1982 and 1983 levels.

Table VI-3 shows the location of fire calls in 1985 according to 16 Emergency Management Areas within and outside the City of Healdsburg as shown in Figure VI-5. Table VI-3 shows that over 40 percent of the structural fires in 1985 occurred in the area between Powell and Piper Streets and that medical emergency calls were concentrated in the greater downtown area.

For most calls, response time averages about three minutes. Response times, however, average seven to eight minutes to the Chiquita Road area, six minutes to Boise Cascade, and seven to eight minutes to the Sunset Road area on the lower slopes of Fitch Mountain.

In addition to providing fire protection services within the city limits, the Healdsburg Fire Department provides first response service within the Fitch Mountain area through an arrangement with the County funded by County Service Area No. 24.

The County of Sonoma has responsibility for structural fire protection in the unincorporated area around Healdsburg, and the California Department of Forestry (CDF) has responsibility for wildland fires. Until 1986, the County contracted with CDF to provide structural fire protection for much of

TABLE VI-2

HEALDSBURG FIRE DEPARTMENT
INCIDENT ACTIVITY
1981- 1985

<u>Type of Alarm</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Structure fires	21	29	30	17	17
Vehicle fires	28	23	19	25	19
Brush fires	18	11	16	16	21
Emergency medical	146	183	207	240	266
Public assist	66	73	113	94	109
False alarms	62	60	62	67	57
County Service Area (Fitch Mountain Area)	6	21	32	24	21
Mutual aid	16	21	25	40	38
Miscellaneous calls (fire)	30	21	12	19	18
Miscellaneous calls (non-fire)	<u>139</u>	<u>108</u>	<u>122</u>	<u>140</u>	<u>124</u>
TOTAL	533	550	629	682	690

Source: Healdsburg Fire Department

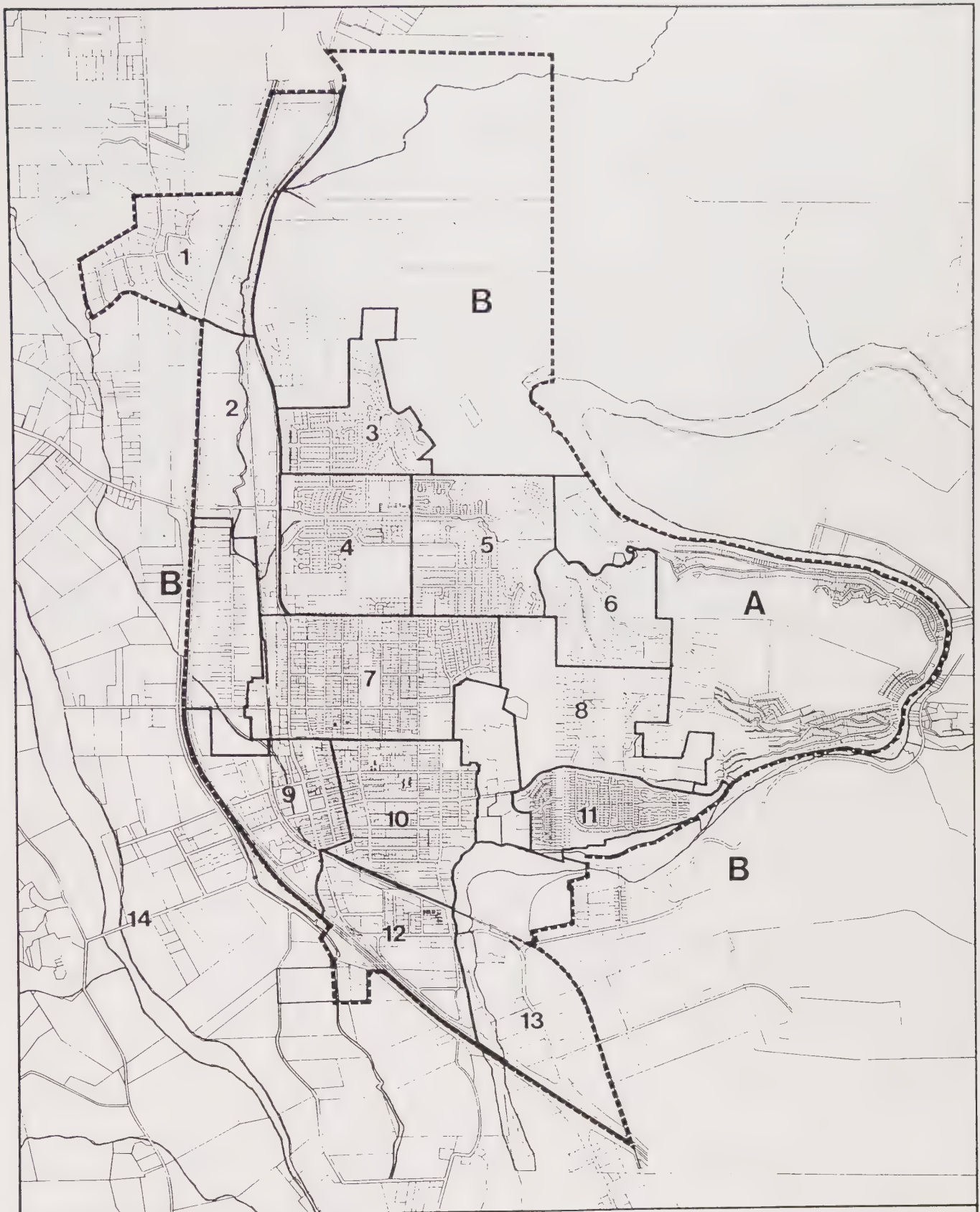
TABLE VI-3

HEALDSBURG FIRE DEPARTMENT INCIDENT ACTIVITY
BY AREA
1985

-- EMERGENCY MANAGEMENT AREAS --

TYPE OF CALL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	B	TOTAL
STRUCTURE FIRE			1	1	1		7	1	2	3		1					17
VEHICLE FIRE	1	6		1			1		4	1		4	1				19
BRUSH FIRE				1	1	2	3	1	4		2	2	2	3			21
EMER. MEDICAL	2	13	10	24	9	5	51	1	62	42	15	17	13	2			266
PUBLIC ASSIST	1	4		4	5		19		27	17	7	22	2	1			109
FALSE ALARMS	2	8		4	1		5		1	19	1	11	5				57
CSA-24 CONTRACT																21	21
MUTUAL AID																38	38
MISC. FIRE		1		2	1	1	4	1	3	3	2						18
MISC. NON-FIRE	7	17	4	5	4	7	22	1	25	10	4	13	4	1			124
TOTAL	13	49	15	42	22	15	112	5	128	95	29	72	27	7	21	38	690

Source: Healdsburg Fire Department, 1986.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTNER AND ASSOCIATES



Figure VI-5 EMERGENCY MANAGEMENT AREAS

- Zone 14 City Property Outside City Limits
(Airport, Corporation Yard, Sewer Plant)
- Zone A Fitch Mountain Service Area
- Zone B All Mutual Aid Calls

the unincorporated area, including the unincorporated Healdsburg area. CDF maintains a station at Lytton Spring Road and Highway 101 with one fire engine and two firefighters. CDF also maintains a station at the Sonoma County Airport.

Geyserville, Windsor, and Rio Lindo are served by volunteer fire companies.

With the termination of the County's contract with CDF in 1986, the County contracted with the City of Healdsburg to provide structural fire protection within a large area that extends west of Warm Springs Dam to the Lake County line at the Geysers, including Dry Creek and Alexander Valleys and the northern half of Windsor. Under the contract, the Healdsburg Fire Department is required to send one truck and three firefighters to any fire in the outlying area, including territory covered by the Geyserville, Rio Lindo and Windsor volunteers. The County contract with Healdsburg will be reevaluated in 1987 and possibly renewed.

The City of Healdsburg currently (1987) maintains an overall Insurance Services Office (ISO) rating of five on a one to ten scale, with one being the best service. Some industrial areas within the city have a poorer rating and therefore pay higher insurance rates. Acquisition of an aerial pumper with a 55-foot ladder, now being considered, may improve the City's ISO rating. The cost of acquiring the new pumper is estimated at \$200,000.

Fire hazards and related considerations are also discussed in Chapter IX, Health and Safety.

SCHOOLS

The Urban Service Area is served by the Healdsburg Union Elementary School District and the Healdsburg Union High School District. Each of these districts has its own independent governing board; however, the administration of the districts has been consolidated under a single Superintendent of Schools.

The boundaries of the Healdsburg Union Elementary School District include an area several times larger than the Healdsburg Urban Service Area, including much of Dry Creek Valley, a portion of Alexander Valley, and extending several miles east of the City. The Elementary School District has two elementary schools.

Fitch Mountain Elementary School, located on a 5.5 acre site at University Street and Sanns Lane, includes grades kindergarten through third. Enrollments have risen steadily since 1980. As of May 7, 1987, Fitch Mountain Elementary had an enrollment of 682. According to the Superintendent of Schools, design capacity of the campus is 400 students. During the 1986-87 school year, the overflow was housed in 11 portable classrooms. The District recently added two more portables to the site to accommodate an anticipated 1987-88 enrollment of at least 725 students.

TABLE VI-4

SCHOOL ENROLLMENTS
Healdsburg Elementary School District and
Healdsburg Union High School District
1980-1987¹

	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>	<u>85-86</u>	<u>86-87</u>
Fitch Mountain Elementary (K-3)	478	532	547	606	617	655
Healdsburg Elementary (4-6)	380	382	381	392	484	538
Healdsburg Junior High (7-8)	543 ²	385	380	337	355	361
Healdsburg High (9-12)	941	977	1061	1038	1071	1121
Mountain View (9-12)	41	38	43	54	63	80

Sources: Healdsburg Superintendent of Schools

¹ October of each school year.

² Includes 175 students attending the District's junior high school in Windsor. The District no longer operates the junior high school and Windsor junior high students are now part of the Windsor Union Elementary School District.

Healdsburg Elementary School, occupying a three acre site at North and First Streets, includes grades four through six. As of May 7, 1987, Healdsburg Elementary had an enrollment of 531. Two classes of third-graders are currently attending Healdsburg Elementary due to high enrollments and lack of space at Fitch Mountain Elementary. A third is expected to be added for the 87-88 school year. According to the Superintendent of Schools, the campus was designed to accommodate 350 students. Additional capacity has been provided by five portable classrooms, with two having been recently added for the 87-88 school year.

Healdsburg Union High School District draws students from four elementary school districts: Healdsburg Union, Alexander Valley Union, Windsor Union, and West Side Union. Healdsburg Union High School District has three schools, two of which are located on the same campus.

Healdsburg Junior High School, situated on an 8+ acre site at Fitch and Grant Streets, includes grades 7 and 8. Enrollment during the 1986-87 school year was 361. According to the Superintendent of Schools the facility is presently at capacity, but the school site has space for expansion.

Healdsburg High School and Mountain View Continuation School include grades 9 through 12 and both are located on a 30 acre site at Powell Avenue and University Street. Healdsburg High School, with 1,121 students during the 1986-87 school year, was also at capacity and was using nine portable classrooms. Mountain View had an enrollment of 80 during 1986-87 and was using two portables.

As a statewide average, a new dwelling unit can be expected to generate 0.5 students grades K-12. The Superintendent of Schools has used the same assumption in Healdsburg: 0.4 students in grades K-6 and 0.1 students in grades 7-12.

It is clear from enrollment figures for K-3 in Healdsburg, as well as in other areas throughout the country, that a second baby-boom has begun and will continue for another decade or so. This second baby-boom, coupled with continuing residential development within the Healdsburg Planning Area, will continue to push elementary school enrollments up. Presumably, these same students will also attend junior high and high school in Healdsburg.

In recent years, additional capacity has been created at district schools primarily by the installation of portable classrooms. It is likely, however, that additional growth within the Urban Service Area and the rising number of children in the lower grades will create the need for an additional elementary school within the Urban Service Area within the near future. Anticipating construction of a third school, Healdsburg Union Elementary is considering reorganizing the lower grades into three K-6 elementary schools. According to the Superintendent of Schools, the new school should be approximately seven acres.

Proposition 13 has drastically limited the ability of the school districts to finance new school facilities. AB 2926, which was passed by the State Legislature in 1986, authorized local school districts to assess fees for school construction at maximum rates of \$1.50 per square foot on new residential developments and \$.25 per square foot on commercial developments. The school districts in Healdsburg have devised a formula by which the elementary school districts will receive 7/13 of fees collected from new residential developments within their boundaries and the high school district will receive 6/13. The Windsor Union Elementary District will, however, receive funds according to a different formula. Because of its unique demographic characteristics, Windsor Union will get 9/14 of the fees collected in its boundaries, and the high school district will get 4/15. No fees are currently being assessed on commercial developments.

In addition to public schools, the Healdsburg area is served by several private schools. St. John's School (preschool through 8th grade) had a 1986-87 enrollment of 182. Rio Lindo Academy (grades 9-12), located east of Healdsburg across the Russian River had an enrollment of approximately 290 during the 1986-87 school year.

MUNICIPAL AIRPORT

The City of Healdsburg owns an airport located on Lytton Spring Road three miles north of the City. Formerly known as the Norton Sky Ranch, the City began leasing the airport in 1970 and eventually acquired it in 1978. The 50 acre airport site includes a 3,100 foot runway and a number of buildings. The city-owned buildings include ten wood "T" hangars, 4 metal "T" hangars, two wood structures leased to private aircraft service companies, and one metal hangar leased to an aircraft maintenance company that is also the vendor for aircraft fuel stored in new City-installed fuel tanks. The City leases nine sites on the west apron for private hangars. The City expects to erect two additional buildings to be leased for commercial purposes.

Physical expansion of the airport is limited by topography, and expansion of commercial enterprises at the airport is limited by the availability of water (i.e., well water only) and sewage disposal (i.e., one septic system and one holding tank).

LIBRARY

Healdsburg's only public library, located at 221 Matheson Street, is owned by the City but operated by Sonoma County. The library building, a Carnegie Library built in 1911, is too small to meet present and projected needs and has a number of structural deficiencies. In early 1985, the City of Healdsburg selected a site on Piper Street between Center and Johnson Streets for a new library. Construction of the new library is expected to be completed by Fall 1987.

MUSEUM

The Healdsburg Museum is temporarily located at 134 Matheson Street next to City Hall. The museum is operated by the City and the Healdsburg Museum and Historical Society. The museum plans to move to the Carnegie Library building when the library moves to its new facilities on Piper Street.

SOLID WASTE DISPOSAL

Solid waste collection and disposal in Healdsburg are handled by Healdsburg Disposal, a private company, under a franchise arrangement with the City. Trash collection is optional and residents and businesses may haul their own trash to the county dump.

The Healdsburg sanitary landfill, operated by the County is located on Alexander Valley Road just north of the Urban Service Area. This landfill is expected to reach its design capacity by 1987, and the County plans to convert the site to a transfer station. The closure of the landfill site may create residual problems for the area immediately to the south within the Urban Service Area in terms of contaminated runoff and migrating gas.

NATURAL GAS

Natural gas service in Healdsburg is provided by Pacific Gas and Electric Company.

COMMUNICATION SERVICES

Telephone service in Healdsburg is provided by Pacific Bell. Western Union maintains an office in Healdsburg at 201 Center Street.

The Healdsburg Tribune and the Santa Rosa Press Democrat are the two local papers with the largest circulation in Healdsburg. The only radio station operating in Healdsburg is KREO, an FM station. Healdsburg residents can receive most Bay Area television stations and the area's only local station, KFTY, operating in Santa Rosa.

MEDICAL SERVICES

Healdsburg General Hospital, located at 1375 University Street, is a 49-bed facility built in 1972. The hospital offers emergency room, surgery, intensive care, cardiac care, and maternity services. The hospital is currently planning an expansion of the hospital on adjacent land.

Healdsburg has only one convalescent home, Healdsburg Convalescent Center, located at 14745 Grove Street. This skilled nursing center has 46 beds, but has plans for an expansion that would add another 40 beds.

Bell Healdsburg Ambulance, located at 434 Powell Avenue, is the city's only ambulance service. With only two ambulances, Bell is limited in its ability to respond to emergency calls; when the Bell ambulances are tied up, an ambulance must be dispatched from Santa Rosa while the Fire Department provides emergency assistance.

FINDINGS

- Present water sources and an additional source to be developed at the City's corporation yard should be adequate to serve growth in the near term. In the long term, additional wells will need to be developed and additional water rights will need to be negotiated. Major new lines and additional storage capacity would have to be installed to serve growth both north and south in the Urban Service Area. A new reservoir will definitely be needed to serve the northern area. Some replacement and upgrading of existing tanks, reservoirs and mains will also be needed as growth occurs.

Fire flows in a part of the area on the slopes of Fitch Mountain are presently inadequate and will eventually need to be improved. Ongoing water main improvements in downtown should eliminate most of the existing fire flow deficiencies in that area.

The Fitch Mountain Water Company services and facilities were evaluated by the County in 1985. What role the City of Healdsburg will play in a possible restructuring of water service in the Fitch Mountain area has yet to be determined.

- Recent and current improvements to the City's main pumping station and treatment facilities and ongoing sewer line improvements to reduce inflow and infiltration will increase the effective capacity of the

sewage treatment system to serve new growth. However, a major expansion of the treatment plant would be required for any substantial new development.

To serve future growth areas at both ends of the City, major sewer lines will have to be installed along with pumping facilities.

- As development occurs and increases run-off within the Foss Creek drainage area, new drainage lines will be required and an additional detention basin will have to be constructed at the upper end of Foss Creek near Healdsburg Avenue. Ongoing storm drainage improvements will eliminate many of the drainage problems in the downtown area.
- Development of future sources of electricity and ongoing conservation measures should ensure that Healdsburg will have adequate electrical energy for future development. A number of improvements in the electrical distribution system, including installation of a new transformer, will be necessary to serve future needs.
- Demographic changes and future growth will necessitate the construction of at least one new elementary school, probably within the next three years. The school district has tentatively identified a new elementary school site on upper Healdsburg Avenue just north of the existing city limits.
- Annexation and future growth within the city limits will place greater demands on both the police and fire protection services. As growth occurs additional fire fighters, police personnel, and equipment will be needed, but not necessarily in direct proportion to population growth. Both police and fire facilities are presently at capacity, suggesting the need for new facilities. Growth in the northern part of the Urban Service Area indicates a need to locate the new facilities, at least a second fire station, in the north part of town. However, locating a single fire station to the north would mean longer response times to the southern part of the city designated for future industrial and highway commercial development.

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PERSONS CONTACTED

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- Richard Pusich, Director of Public Works, City of Healdsburg
- Bill Roberson, Jr. Civil Engineer, City of Healdsburg
- Dr. Jerry Shroeder, Superintendent of Schools
- Nancy Weiss, Administrative Assistant

CHAPTER VII

RECREATION AND CULTURAL RESOURCES

INTRODUCTION

The City of Healdsburg is rich in recreational, cultural and archaeological resources. These resources take several forms ranging from the contemporary city and its open space resource through the rich historic settlement and development periods, to the ethnography and archeological resources of the native American period.

The purpose of this chapter is threefold. First, it sets forth a series of conventions and standards to guide the planning of recreational facilities. Second, it provides an inventory of the city's recreation and cultural resources. Third, it identifies those considerations and issues pertaining to the planning of future parks and recreation facilities, including an inventory of potential sites for such facilities.

Although no original research and fieldwork was conducted in the development of this chapter, numerous published sources and many public agencies and individuals involved in parks and recreation planning and management and cultural resources management in the Healdsburg area were consulted in preparing the chapter.

PARK AND RECREATION RESOURCES

The Healdsburg area offers a wide range of recreational opportunities for both residents and visitors. The natural beauty and open-space character of the area provide outstanding outdoor recreational activities including fishing, swimming, hiking, canoeing, water skiing, horseback riding, and bicycling.

In addition, Healdsburg has many locational advantages. The city is close to the San Francisco metropolitan area and the Northern California coast. Healdsburg is located in the center of the North Coast agricultural district and at the northern tip of the Napa/Sonoma County wine region. Easily accessible from Highway 101, Healdsburg is the first city north of the Bay Area with a rural, small town character. It is likely that Healdsburg will become the gateway to the Lake Sonoma, recently opened to the public, and projected to attract 2.5 million visitors annually. Given the high scenic values, natural resources, and recreational resources of the area, Healdsburg has the potential to become a major outdoor recreational area for its residents, the region, and the state.

Inventory of Existing Parks and Recreational Facilities

Several inventories of existing parks and recreation resources and surveys of recreation needs have been conducted in the past few years--a 1977 recreation study by California State University at Chico, an update of the CSU Chico study, the 1982 Healdsburg Open Space Report, and a 1984 survey by the Healdsburg Department of Parks and Recreation. The following inventory

of facilities reflects a composite of those various studies. The acreages, facilities and activities available at each location are summarized in the following discussion.

Figure VII-1 shows the geographic locations of existing parks and recreation facilities. Twelve public parks and recreation facilities are located within the city, and an approximately equal number of public, semi-public, and private facilities are also available for recreation use. Table VII-1 summarizes the facilities at each of the city's parks and recreation facilities.

Neighborhood Parks

- Healdsburg Plaza (one acre)

Healdsburg's downtown is designed around a small, Spanish style plaza, one of the few existing in the United States today. The Plaza Park offers a mix of historic and cultural assets, as well as providing a focal point for the downtown area. This park contains stately heritage trees, shaded areas, benches, a central fountain, broad lawns and turfing areas, and a park bandstand for musical and cultural festivals. Facilities also include lighting, and a maintenance shed.

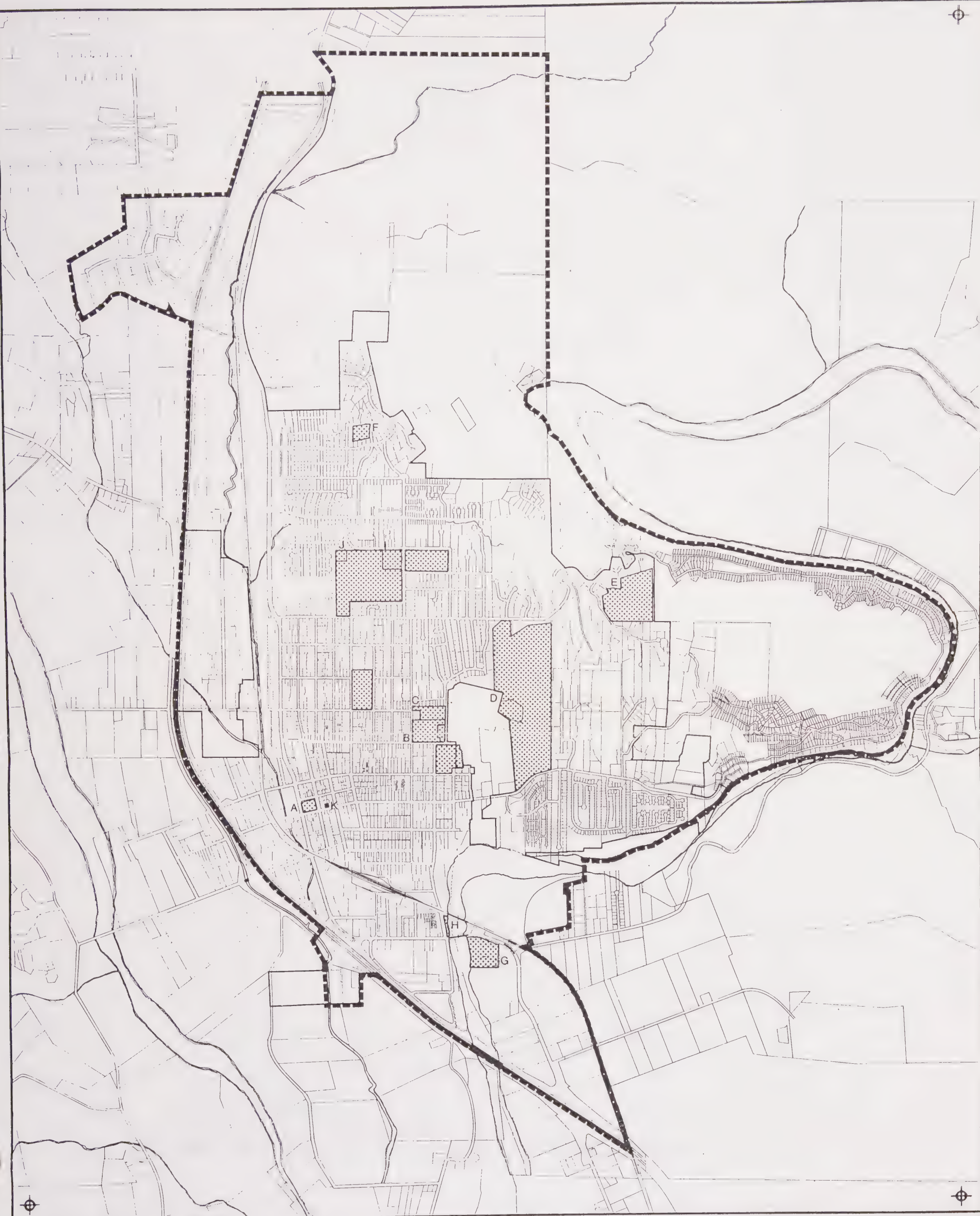
- Recreation Park (four acres)

Located on University and Piper Streets, Recreation Park is one of the City's major active recreation centers. Facilities include lighted baseball, softball, and football fields, a covered grandstand, concession stands, restrooms, and horseshoe pits. Recreation Park is adjacent to Giorgi Park to the north and the Boy's Club facility to the east. The Boy's Club offers a variety of programs for boys and girls ages six to eighteen. Programs include counseling services, sports programs, social development, and educational programs. The park offers many recreational opportunities for the young and adult communities, and is the site of the annual Future Farmers Fair held in May of each year. Facilities include exhibit booths, picnic tables, parking, and a maintenance shed.

- Giorgi Park (three acres)

Giorgi Park, located at 540 University Street, adjacent to Recreation Park, has playground equipment for children ages 2 through 15, two lighted tennis courts, bocci ball court, restrooms, and parking facilities. The playground area contains swings, slides, an undeveloped free play area, tot lot, and other apparatus. Shaded areas and several picnic tables make this park an attractive place for family outings.

Facilities at both Recreation Park and Giorgi Park are augmented by paved multiple-use court game areas, field sport areas, and unlighted baseball diamonds at Healdsburg Elementary School. Healdsburg Junior High School (two blocks to the west) also provides a gymnasium, football/soccer field, and additional field sport and court game areas.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

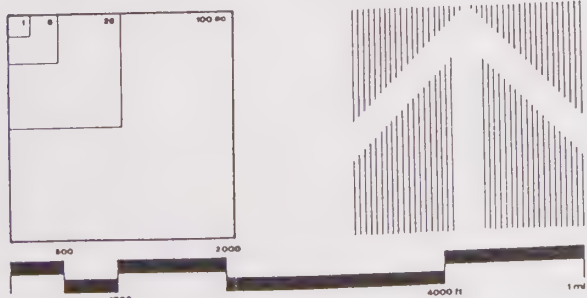


Figure VII-1 EXISTING PARKS & RECREATION FACILITIES

- A. Healdsburg Plaza
- B. Recreation Park
- C. Giorgi Park
- D. Tayman Park/Golf Course
- E. Villa Chanticleer
- F. Gibbs Park
- G. Memorial Beach
- H. Railroad Park
- I. Monte Vista Park
- J. Municipal Pool
- K. Senior Center

Source: City of Healdsburg Department of Parks & Recreation, 1986

TABLE VII-1

PARK AND RECREATION FACILITIES AND ACTIVITIES

PARK	Healdsburg Plaza Park	Recreation Park	Giorgi Park	Gibbs Park	Railroad Park	Tayman Park	Villa Chanticleer	Memorial Beach	Monte Vista	Municipal Pool	Community Center
Park Acreage	1	4	3	2.5	1	60	17	7		.5	
Activities											
Softball		X							X		
Soccer									X		
Basketball									X		
Baseball		X							X		
Boating								X			
Swimming								X		X	
Tennis		X	X						X		
Handball											
Tot Lot			X	X			X		X		
Volleyball							X	X			
Bocciball		X	X								
Football		X							X		
Fishing								X			
Horseshoes		X									
Golf						X					
Music	X										
Facilities											
Snack Bar/ Concessions		X				X		X			
Dining Room							X				
Exhibit Booths		X									
Ballroom							X				
Pro Shop						X					
Store							X				
Room Rentals											
Mtg., Clubs						X	X				X
Grandstand		X									
Bar-B-Que						X	X				
Benches	X			X	X					X	
Water											
Fountains	X	X	X	X			X				
Restrooms		X	X	X			X	X			
Showers								X		X	
Picnic Tables			X	X	X	X	X	X			
Playground											
Equipment			X	X			X				
Equipment											
Rental						X		X		X	
Shade	X	X	X	X	X		X	X			
Turf	X			X							
Lights	X	X							X		
Beach								X			
Maintenance											
Shed	X	X		X			X	X			
Parking	X	X	X			X	X	X			

- Gibbs Park (two and one-half acres)

Located at 1520 Prentice Drive, this facility serves the residential area at the north end of the city. Facilities include playground equipment and a tot lot surrounded by landscaped open space, picnic tables, benches, shaded areas, restrooms, and a maintenance shed.

- Railroad Park (one acre)

This small neighborhood park is located near the south end of the city between Front Street and the Russian River. Picnic tables, benches, shaded areas and the natural beauty of the river make this park an excellent spot for family gatherings.

Community Parks and Recreational Facilities

- Tayman Park/Golf Course (60 acres)

Featuring a nine-hole golf course, this heavily used facility is a major recreationl asset to the city. The park is located at 927 South Fitch Mountain Road, east of Oak Mound Cemetery. It provides families and groups with picnic tables and barbecue facilities for outdoor recreation. A new clubhouse, which will replace the old clubhouse destroyed by a fire in 1986, will include a pro shop, snack bar and bar. The Golf Course is managed through a contract with Silband Sports.

- Villa Chanticleer (17 acres)

This facility, located on a beautiful 17 acre site on the north slope of Fitch Mountain, offers opportunities for both individual and group activities in an outstanding natural setting. The main feature is a large, attractive redwood building designed for dining, dancing, banquets, receptions, meetings, civic and private events. The Villa can accommodate up to 500 persons. Also located on the wooded grounds are picnic areas with barbecue equipment, playground equipment, restrooms, and a volleyball court. Other facilities include a parking area, maintenance shed, small store, and cabins. The City is currently dicussing converting the main ballroom into a multi-use performing arts center, to be developed through a gift from an anonymous donor, and developing an open-air amphitheater for music festivals, plays, and band concerts.

- Municipal Pool (.75 acres)

The municipal swimming pool, located near the northwest corner of Healdsburg High School (University Street and Monte Vista Avenue), is comprised of two recreational pools: a 60' x 92' public swimming pool and a 20' x 30' tiny tot pool. Other facilities include benches, showers, dressing rooms, solar heating, lighting, and concession equipment.

- Senior Citizen Center

Located at 131 Matheson Street, the Senior Citizen Center is open for use by non-profit clubs and groups. In 1986, the Senior Citizen Center was extensively expanded and remodeled.

- Community Center

Formerly located at 131 Matheson Street, the Community Center was displaced by the expansion and remodelling of the Senior Citizen Center in 1986. The City is currently looking for an existing building that could be renovated for use as a multipurpose Community Center.

Regional/County Parks

- Memorial Beach (eleven acres)

Located on about eleven acres along the Russian River at the south end of the city, Memorial Beach is the only facility within the Planning Area operated and maintained by the County. Also known as Healdsburg Beach, it serves more regional users than local residents. Memorial Beach includes a swimming area and beach, shaded and picnic areas, showers and restrooms, and snack and concession stands. In addition there are boating, waterskiing, and fishing facilities located north of the public beach. Other facilities include a volleyball court, parking, maintenance shed, and equipment rentals.

Other Public, Semi-Public and Private Facilities for Recreational Use

Recreation facilities include not only public facilities such as parks, athletic facilities, and special facilities, but private facilities as well. Private facilities include skating rinks, bowling facilities, tennis courts, golf courses, boating facilities, electronic game rooms, and other forms of recreation facilities. It is especially important to consider both public and private facilities, because as public resources continue to decline, the coordination between public and private facilities will become more critical to meet the recreation needs of an expanding community.

- Healdsburg Elementary School

Located at 400 First Street, south of both Recreation and Giorgi Parks, the school contains baseball, softball, soccer and basketball areas, as well as playground equipment and a tot lot. The Healdsburg Recreation Department uses the Blue Room, located behind the partitions of the multi-purpose room, for some recreation classes.

- Healdsburg Junior High School

Healdsburg Junior High School, located on Grant Street between Fitch Street and College Street, has both indoor and outdoor facilities which are also used for organized non-school recreation activities, primarily volleyball during the winter months and field sports during the summer.

- Monte Vista Park

Located along Monte Vista and University Avenues, Monte Vista Park is a school facility used and maintained by the City through a cooperative arrangement with the School District. The park includes a lighted ball field at the northwest corner of Healdsburg High School, a hardball-softball field in the southwest corner, and four tennis courts at the

southeast corner of the High School. Rounding out available facilities for local recreation use are the football field, paved court games area and two gymnasiums at Healdsburg High School. Frost Hall, the high school multipurpose room, is available for public use. Recreation uses are somewhat limited due to the nature of the floor, but uses do include overflow volleyball league games.

- Healdsburg Boy's Club (public)

Boy's Club facilities located adjacent to Recreation Park include a gymnasium, game room (pool, air hockey, pinball, video games), craft workshop (woodworking, pottery, graphics), rest rooms, and a parking lot.

- Community Garden Project (public)

This community garden, located near Tayman Park across Matheson Street, provides garden space for a number of residents.

- Del Rio Woods Beach (public)

The Del Rio Woods Recreation District maintains a beach along the Russian River and annually constructs a dam on the river. In 1986, the beach was closed and the district commissioners resigned over the loss of their liability insurance. The beach should reopen once the liability insurance problem is resolved.

- Camp Rose Inn (private)

Located at 2100 South Fitch Mountain Road, this two acre camp includes beach facilities with free access for private day use only.

- Grange Hall (private)

This facility is available for organization use only.

- Odd Fellows Hall (private)

This facility is available for organization use only.

- Masonic Hall (private)

This facility is available for organization use only.

- Federated Church (semi-public)

Located at 217 Fitch Street, the church hall can be reserved for use by private organizations. It is used primarily by teenagers.

- Villa Annex (public)

This facility, which can seat 150 for dinner or 250 for conferences, is operated in conjunction with Villa Chanticleer. In 1986 the annex was expanded and refurbished through the efforts of local chapters of the

American Legion and Veterans of Foreign Wars. It is available for rent by private groups, individuals and businesses.

- Armory (public)

The armory is available for public recreation use and is currently used for Jazzercise and exercise classes.

- St. Paul's Hall (semi-public)

This Episcopal church hall can be used by private organizations. Teen activities dominate its uses.

- St. John's Hall (semi-public)

This Catholic church hall can be reserved and used by private organizations. Teen activities also dominate its uses.

Commercial Recreation Facilities

- Aven Theater (115 North Street)

- W.C. Bob Trowbridge Canoe Trips

Located at 13849 Old Redwood Highway, this commercial recreation facility provides 60-mile canoe trips along the Russian River, starting at Cloverdale and terminating at Jenner By The Sea. Trips run March through October.

- Healdsburg Municipal Airport (three miles north of Healdsburg and west of Highway 101)

The airport with 40 to 50 based aircraft is used heavily by recreational flyers, ultra-light aircraft owners and is the site for air meets of various kinds.

Existing Levels of Recreation Use

There are no detailed records of levels of actual use for the facilities described above. However, the Parks and Recreation Director reviewed current records to generate the following information on existing organized recreation use:

- Healdsburg Plaza

There are at least ten special events per year scheduled for the Plaza. Approximately 200 persons attend each of a series of city band concerts, and approximately 6-7,000 persons participate in the annual Wine Festival.

- Recreation Park

Recreation Park is used extensively for both adult and youth athletic league games and tournaments. Twenty-eight adult softball teams play 14-game schedules in the park on Monday through Friday during the late spring and

summer. There are also adult softball tournaments on seven weekends each year.

Twenty youth baseball teams use the park for 12 weeks each year, and three Pop Warner youth football teams play five games each at the park's football field. The Healdsburg High School Varsity and Junior Varsity football teams each play five games at the field, and the high school baseball team uses the baseball field for 45 practices and 15 home games each year.

Youth soccer is played at Recreation Park for an eight-week period each year, with two simultaneous games occurring over a two-day period each week. There are approximately 12 games per week over the eight week period. The high school soccer team also plays two games per year at Recreation Park.

- Giorgi Park

Giorgi Park is used for men's bocci ball games three days each week for a six month period. Approximately 30 men participate in this use. The two tennis courts receive substantial use, although no data is available. Additional facilities are a tennis court practice board, horseshoe pits, and a volleyball court.

- Gibbs Park

There is no organized recreational use at Gibbs Park; use is limited to family use, and informal play and recreation. Playground equipment for children 6-14 years old is available at the park.

- Railroad Park

There is no organized recreational use at Railroad Park, although picnic tables and a lawn area provide outstanding views of the Russian River. This park is the only City controlled public open-space on the River.

- Tayman Park

Tayman Park, a nine-hole public golf course, is an increasingly heavily used facility.

- Villa Chanticleer

Villa Chanticleer is a very heavily used facility. Table VII-2 shows the number of hours of scheduled use for the main building, the annex, and the three meeting rooms for the period July 1984 through April 1985 (with estimated hours of use for May and June 1985). The number of recreation programs scheduled for the facility each month is also shown in Table VII-2. These data reflect an average use-level of 2.38 hours of use per day per facility on weekdays and 5.04 hours of use per day per facility on weekends. An average of over 32 recreation programs take place in the Villa facilities each month, an average of one per day. These data underscore the popularity and level of use for the Villa Chanticleer.

- Municipal Pool

1984 use-data for the municipal pool indicate over 20,000 pool admissions for the period June 13 through September 30. Of these users, 18,600 admissions were for public swimming and 1,605 for the 'learning to swim' program. Daily use averages 182 persons.

- Memorial Beach

Memorial Beach is very heavily used for water recreation during the period May 30 through September 15 when the temporary dam is in place.

- Healdsburg Elementary School

There is no organized recreational use at Healdsburg Elementary School, although the play fields are occasionally used for overflow team sport practices.

- Healdsburg Junior High School

Girls' youth kickball and softball are scheduled for the fields at the Junior High School four nights per week over a 12-week period during the summer.

- Monte Vista Park

The lighted ballfield at Monte Vista Park is among the most heavily used facilities in the city. Twenty-six co-ed softball teams play their schedule over a 14-week period and six men's softball teams use the facility for a 12-week period. The high school girls' softball team also uses the facility for daily practice and one game each week for a 12-week period. Monte Vista Park is also the "home" park for two youth softball teams.

TABLE VII-2
VILLA CHANTICLEER USE DATA

Month 1984-1985	Scheduled Hours of Use		Number of Recreation Programs and Groups Using Facilities
	Mon.-Thurs	Fri.-Sun.	
July	34	58	25
August	54.5	89	23
September	36.5	50	25
October	63.5	89.5	45
November	62.5	63	29
December	63	103	25
January	52	40	24
February	40	75	50
March	41	98	37
April	50	88	32
May (est.)	42	52	42
June (est.)	32	102	31
Average	47.6	75.6	32.3
Average Hours/Day	11.9	25.2	N/A

Future Parks and Recreation Needs

Standards for Park and Recreation Areas

In order to determine the recreational needs of Healdsburg, a number of factors need to be considered. It is important to meet the needs of the current and projected population as well as the social needs of special groups in the community. Topography, the extent of private facilities or facilities in planned developments, and the unique population characteristics in any given neighborhood require that special standards be applied to recreational needs in the city.

There are many techniques utilized in the formulation of standards for park and recreation purposes. Standards that apply to cities not having Healdsburg's quantity and quality of open-space lands might not be applicable. The City's standards must be flexible enough to recognize that densities and age distributions can significantly differ from one district of the city to another.

Park and recreation space standards are measures of the land area required to accomplish a specific objective. Such standards are not static measures, but ones that changes as the people or conditions change. Facilities that may have been considered adequate in 1940 would be far from adequate today, and likewise, the standards of today will not serve in the year 2000.

There are four basic methods for determining space standards utilized in planning for park and recreations facilities:

1. Location Standard - This method is based on the establishment of maximum distances from a neighborhood to various kinds of parks. Elementary school service-areas are frequently used for the establishment of a service radius.
2. Population Standard - This method seeks to match an established minimum acreage for each kind of recreation facility with the population to be served.
3. Use Standard - This method correlates facility needs with projected populations and user characteristics. It considers the community's particular social, economic, and other factors that play a major role in determining a community's recreational requirements.
4. Size Standard - This method is based on setting aside a previously determined percentage of land (e.g., ten percent) within a city for various categories of park facilities and/or open-space.

Healdsburg is a unique city, with characteristics that preclude adoption of average standards. In setting aside land for future parks and recreation, it is important to select standards that reflect both current and projected future conditions that are consistent with the city's strong outdoor and outdoor recreation orientation.

Numerous standards, including those developed by the National Recreation and Park Society and the State of California, have been reviewed, and applicable protions recommended for incorporation into recreational planning for Healdsburg. Table VII-3 shows a composite of State and National Standards by park-type. Table VII-4 compares the existing city park and recreation

facilities with these standards and identifies future park needs at several future city population levels. This data will be utilized during the planning process to assist in identifying the level of facility needs for various increments of city population growth. The approach which appears to be best suited to determine the city's current and future park and recreation requirements combines two standards--population and use.

This will provide standards that can be applied to best serve individual neighborhoods and geographically identifiable areas within the city. Flexibility has been maintained in order to serve those portions of the community that are atypical. For example, areas with disproportionately large concentrations of older citizens are recognized and special emphasis placed upon providing passive areas and special facilities suitable for their use and enjoyment.

Identified Park and Recreation Needs

As noted earlier, two surveys of recreation needs have been conducted in Healdsburg during the past few years. The Parks and Recreation Commission and the Director of Parks and Recreation have also identified and listed facility needs. The following list reflects a composite listing of facilities as represented in these recent surveys and administrative lists. Interviews with City officials conducted by the Consultant Team during the initial phase of the General Plan revision both identified and reinforced concerns relevant to park and recreation needs.

- (1) Elderly Community Center
- (2) Teen Community Center
- (3) Family Picnic Areas
- (4) City Park
- (5) Bicycle Path/Trails
- (6) Foot Paths/Trails
- (7) Children's Play Area/Tot Play Area
- (8) Small Group Picnic Area
- (9) Community/Cultural Center
- (10) Fish Ponds

TABLE VII-3

COMPOSITE STATE AND NATIONAL PARKS AND RECREATION STANDARDS

Park Classification	Suggested Service Radius	Suggested Acres/ 1,000 Population
Neighborhood	1/4 - 1/2 mile	2 - 2.5
Community	1 - 2 miles	2.5 - 4.0
Regional	10 miles	15 - 20

Source:

TABLE VII-4

COMPARISON OF CITY OF HEALDSBURG PARK AND RECREATION
FACILITIES WITH STATE/NATIONAL STANDARDS

Population Level	Park Acreage			
		Neighborhood	Community	Regional
8,000	existing	11.5 ¹	17 ²	11 ³
	need ⁴	20	20	120
	"deficit"	8.5 ⁵	3 ⁵	109
10,000	need ⁴	25	25	150
12,000	need ⁴	30	30	180
14,000	need ⁴	35	35	210
16,000	need ⁴	40	40	240
18,000	need ⁴	45	45	270

¹ Healdsburg Plaza, Recreation Park, Giorgi Park, Gibbs Park, and Railroad Park

² Villa Chanticleer

³ Memorial Beach

⁴ Needed to meet standards of 2.5 acres of neighborhood parkland per 1,000 population, 2.5 acres of community parkland per 1,000 population and 15 acres of regional parkland per 1,000 population.

⁵ Does not include use of school facilities.

Future Needs in General

- (1) Acquire and/or develop open space land for additional soccer fields and open-space (passive playgrounds, picnic areas).
- (2) Acquire riverfront property for public use.
- (3) Acquire and/or develop an indoor facility for basketball, volleyball, recreational programs, and club activities.
- (4) Improve existing facilities, as set forth in the Recreation Commission updated five-year plan.
- (5) Develop a system of bikeways and pedestrian ways, preferably in conjunction with the restoration of riparian corridors, which constitute natural transportation corridors. Proposed bikeways and jogging paths are shown on Figure VII-2.
- (6) Develop pedestrian access to facilities on the outskirts of town, such as Villa Chanticleer.

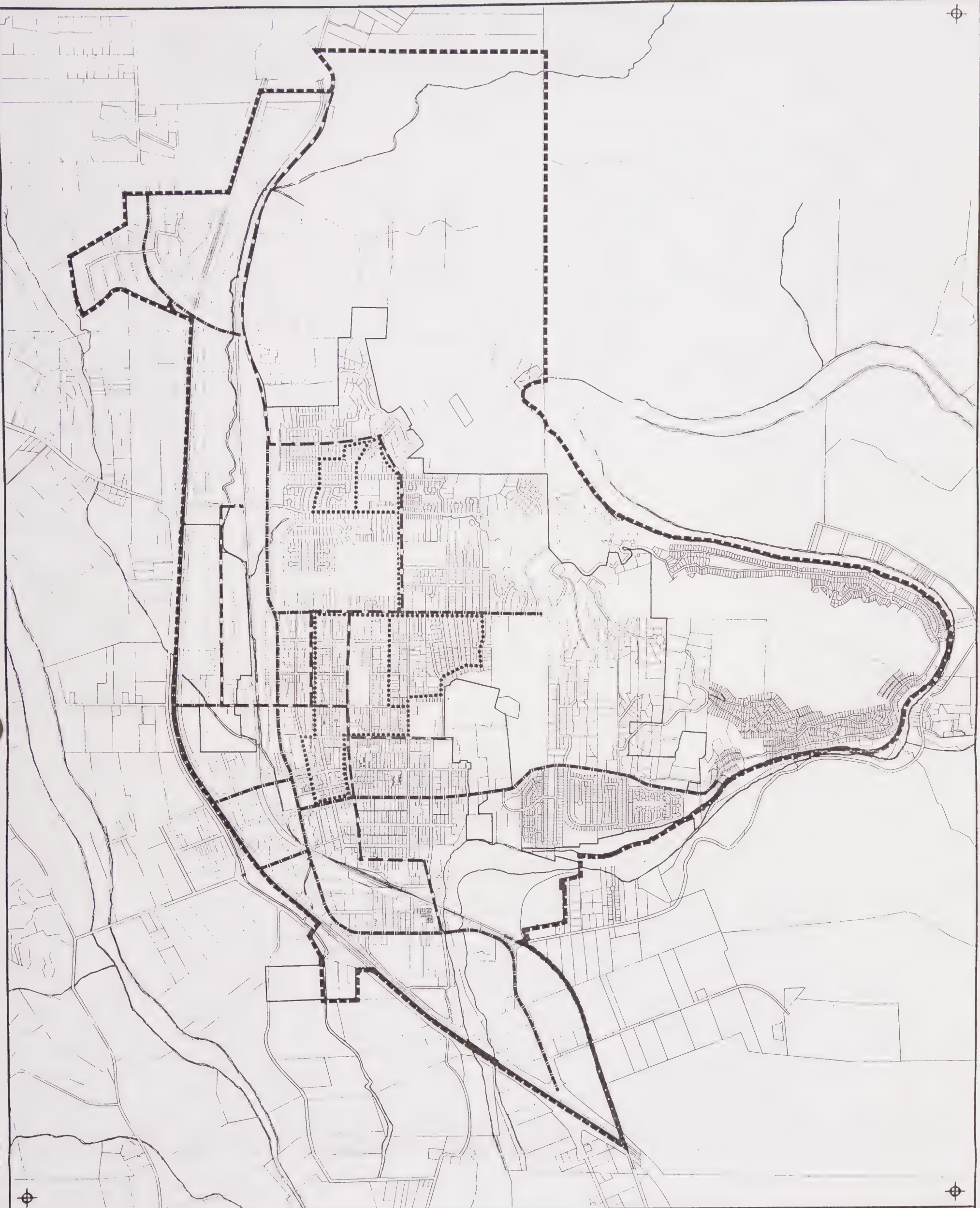
Other Future Possibilities

- (1) Expand the community garden project
- (2) Develop par course/jogging paths
- (3) Develop racquetball facilities

Inventory of Potential Parks Sites

The following inventory of potential parks and recreation sites is a list of those sites identified during the preparation of the General Plan based on the Consultant Team evaluation and various published and administrative lists compiled over the past several years. Figure VII-3 shows the locations of these sites.

1. Neighborhood/Community - A neighborhood or community park of approximately 5 to 10 acres located in the central valley of the north area, possibly on the site of a new elementary school.
2. View Park - A view park located on or near the promontory overlooking the valley to the north and east.
3. Neighborhood Park - A neighborhood park of approximately 5 acres located east of Healdsburg Avenue, possibly on the site of a new elementary school.
4. View Park - A view park located near Iverson Reservoir providing a full panorama of northern Sonoma County.
5. Neighborhood/Community Park - A neighborhood or community park of approximately 5 to 8 acres located west of Grove Street and well integrated with new residential development. If developed as a community park, this park should include baseball/softball fields and soccer fields.
6. Neighborhood/Community Park - A neighborhood/community park of approximately 5 to 8 acres located in the area bounded by Grant Street, the railroad tracks, and the development fronting on Healdsburg Avenue. This park should be developed in conjunction with the renovation of the



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

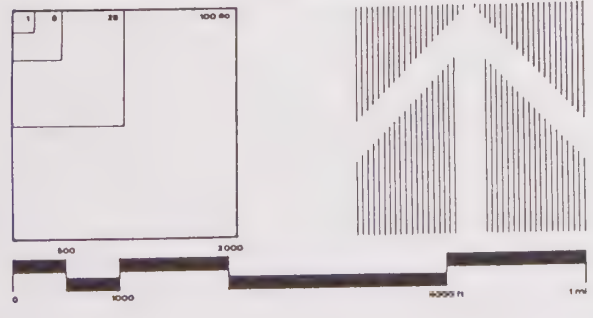
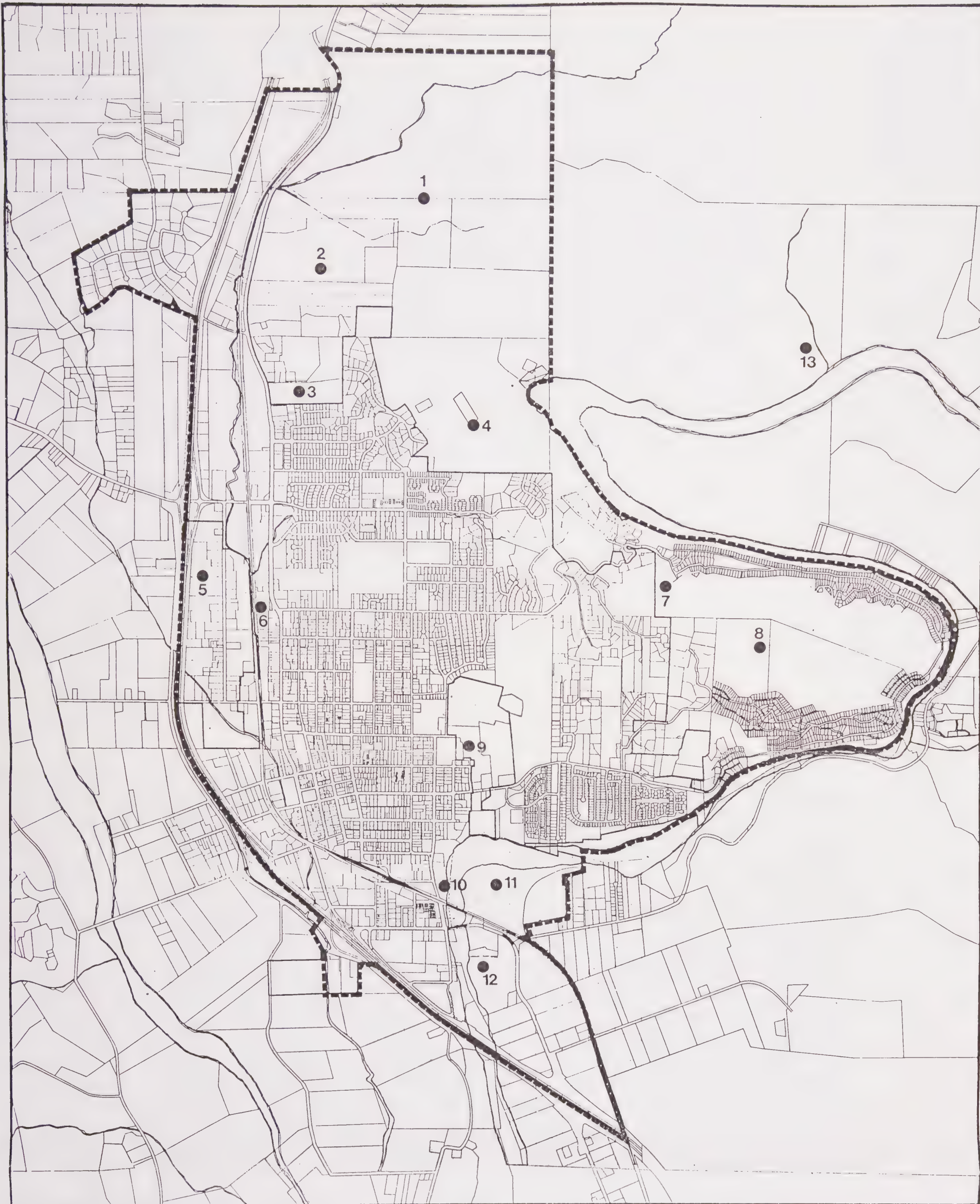


Figure VII-2. BICYCLE ROUTES & JOGGING PATHS

- Sonoma County Transportation Bikeways
- Proposed City of Healdsburg Bike Routes
- Proposed City of Healdsburg Jogging Paths

Sources: Sonoma Co. General Plan, 1978;
City of Healdsburg Dept. of Parks & Recreation, 1985



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

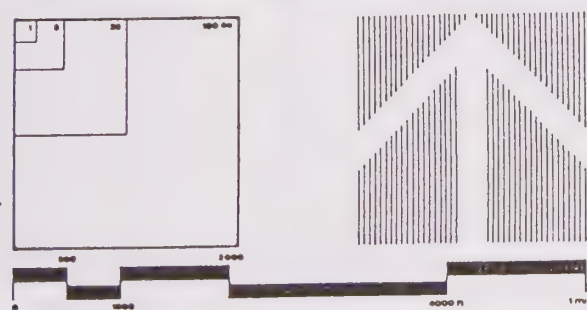


Figure VII-3. POTENTIAL PARK SITES

- | | |
|--------------------------------|-----------------------|
| 1. Neighborhood/Community Park | 7. Community Park |
| 2. View Park | 8. View Park |
| 3. Neighborhood Park | 9. Neighborhood Park |
| 4. View Park | 10. Neighborhood Park |
| 5. Neighborhood/Community Park | 11. Regional Park |
| 6. Neighborhood/Community Park | 12. Regional Park |
| | 13. Regional Park |

Source: Consultant Team , September 1986

Old Passalacqua Winery for public or commercial use. This park may be appropriate for development of a par course.

7. Community Park - An expansion of Villa Chanticleer to the east by between 10-15 acres.
8. View Park - A view park located at or near the summit of Fitch Mountain. This park might be developed as a natural park accessible only by trail from Villa Chanticleer.
9. Neighborhood Park - A neighborhood park of approximately one acre located adjacent to the Russian River north of the railroad tracks.
10. Regional Park - A community park of 10 to 30 acres adjacent to Memorial Beach, developed by or in conjunction with the County.
11. Regional Park - An expansion of Memorial Beach to the south, developed by the County.
12. Regional Park - A regional park of approximately 60 acres at Digger Bend developed by the County.

Local/Neighborhood Parks

The following locations have been identified as possible future neighborhood parks and recreation sites:

- An undesignated parcel located to the north of the existing city limits, but inside the Planning Area.
- An undesignated parcel connecting the Foss Creek tributaries northwest of Poppy Hill Drive.
- The City's old corporation yard, south of South Fitch Mountain Road.
- A parcel south of Railroad Park, with access to the Russian River.
- The PG&E parcel at Front and Hudson Streets.

Community Parks

Sites previously identified or proposed for a new City park (with necessary acreage and facilities to meet the needs of local families) include the following:

- City's old corporation yard (see above).
- Digger Bend, located at the northeast corner of town where the Russian River curves around Rio Lindo.
- Other lands adjacent to Russian River have been identified as potential parksites, specifically areas near the Riversbend development.
- The eight-acre Foss Creek Retention Basin, located east of Grove Street, west of Foss Creek, and north of Grant Street, is identified as a facility which could include three outdoor soccer fields.
- A series of vacant parcels along the west side of Grove Street, close to Foss Creek Basin, have been identified as a potential community park site.

- The ten-acre parcel west of the high school, north of Powell Avenue, and east of Healdsburg Avenue, could facilitate a neighborhood park in addition to housing.
- The parcel located behind Healdsburg Elementary School and the Boy's Club could be used to expand the community park complex in this area of the city.

Regional Parks

- Digger Bend Regional Park

This park would involve the acquisition and development of a site on the Russian River opposite Digger Bend, with the cooperation of Sonoma County and the State. The 1978 General Plan states that a major project of Healdsburg and Sonoma County should be acquisition of a regional park on the Russian River adjoining Healdsburg. This area is presently a vineyard.

- Fitch Mountain

Lands on the steep, wooded slopes leading from Villa Chanticleer to the summit of Fitch Mountain could be annexed to the City and developed as a natural-reserve and park, with limited hiking and day-use facilities. Public acquisition could assure preservation of a major recreational and open space asset, as well as avoiding the hazards and visual impacts associated with residential development on the very steep slopes.

- Regional/Community Trail and Wayside Park

Taking advantage of the natural transportation corridors created by the Russian River, Foss Creek, and Dry Creek, linear parks could be established primarily for walking, bicycling, horseback riding, or running. This network of linear parks could be both community and region-serving.

- Recreational Trail System

A nature study and trail system could be developed in conjunction with Fitch Mountain, the Russian River, Digger Bend, and other natural areas in and around Healdsburg. (Detailed plans for this potential interconnection are set forth in the Parks and Recreation Element of the 1973 City of Healdsburg General Plan).

HISTORICAL AND CULTURAL RESOURCES

Healdsburg has many historical aspects and traditions that date back to the early settlement patterns of Euro-Americans on the west coast. The city's central geographic location, exceptional climate, and scenic attractions have helped foster and develop the local economy over the years. Thus the history of agriculture, timber, and recreation have blended into the daily life of the city, creating a rich and varied historical and cultural heritage.

Native Americans

The Native American population in the Healdsburg area numbered close to 10,000 before it was decimated by small pox epidemics and hostility from the Mexican military brought on by initial European contact in the 1830s and again by secondary Euro-American settlement in the 1850s. For thousands of years, this portion of California was the most densely populated area north of Mexico. In the mid-1830s, Mexican army general Mariano Vallejo recorded the unusually dense Southern Pomo (native for "people") and Wappo tribes in the Dry Creek and Alexander Valleys, respectively. The Russian River was a main source of food for the Pomo who are renowned for their crafts, especially basket-making. Those Native Americans who survived the small pox and other epidemics were displaced to nearby missions or Rancherias (reservations) to the north by the 1850s.

European and Euro-American Settlement

Initial European settlement began in the 1830's when Russian immigrants and the Mexican military and missionaries were stationed across the area. In 1841 the Healdsburg area became part of Rancho Sotoyome (the name of one Native American tribelet), a 48,800 acre land grant to San Diego sea captain Henry D. Fitch made by the Mexican government. Fitch, a wealthy landowner in other parts of California, hired Rocky Mountain fur-trapper Cyrus Alexander to manage the ranch. In 1841 Alexander built a large adobe dwelling and developed a cattle ranch, tannery, grist mill, and cigarette factory. As a gift from Fitch, in 1845 Alexander was given a 9,000 acre tract where he raised cattle, planted fruit orchards and grape vines. This area later became known as Alexander Valley. The political and social unrest of the war with Mexico led to the decline of rancho life between 1846 and 1849.

Gold Rush and Commerce

1848 saw the beginning of the Gold Rush in California, during which Euro-American settlement increased sharply. Rancho Sotoyome lay along a major north/south travel artery for miners coming from San Francisco. In 1850 John March established a mill on Mill Creek, taking advantage of the plentiful redwood lumber. Another early settler was Harmon G. Heald who came to the area with his brothers after a failed gold mining attempt.

Heald built a small cabin in 1851, and opened a small general store in 1852, which later became the only post office in northern Sonoma County in 1854. Between 1850 and 1860, many failed gold miners joined Heald as the core of a budding business community. In 1857 Heald officially subdivided and laid out a town that he named "Healdsburg." He donated a central lot for a park/plaza, and lots for a cemetery, school, and churches. Ten years later, in 1867, Healdsburg was incorporated under state law. In 1871 the Northwestern Pacific Railroad was extended through Healdsburg. Major settlement was stimulated by both Heald's subdivision and the railroad between 1848 and 1880.

The population within the city limits swelled from 300 in 1857 to almost 2,000 in 1880. The population then stabilized until the 1940s. A steady population increase since 1950 nearly quadrupled that figure by 1980.

Downtown commercial construction boomed between 1908 and 1912, partly due to reconstruction following the 1906 earthquake. This period also was an increase in recreational development catering to tourism. A local depression in the wine industry caused by Prohibition, and later the Depression, sent all construction into a slump until after World War II.

The major influence affecting commerce in recent years was the construction of the freeway (Highway 101) through Healdsburg in the mid-1960s. The freeway provides convenient access to major urban areas to the south.

Agriculture

Agriculture has always been the main base of the Healdsburg local economy. Historically, Healdsburg has served as a commercial center supplying the outlying agricultural community. In the early settlement years, grain and cattle-raising predominated. In the mid 1870's, the agricultural focus shifted to fruit-growing, mainly pears, peaches, prunes, grapes, as well as hops. By the end of the Civil War, grape-growing was expanding in California and Healdsburg's first winery was established in 1873. With the construction of canneries and packing houses (which employed mostly local women), prune processing predominated from Prohibition until the 1960's. In recent years wineries have played an increasingly major role in the local economy. Tourism, a significant portion of which is winery-related, also plays an important role in Healdsburg's economy. The recreational opportunities offered by the Russian River have spawned a century old tourist trade in Healdsburg. Other recreational advantages such as Fitch Mountain and Foss Creek promise to enhance Healdsburg's tourist economy in the future.

Historic Sites and Buildings

There are many historic and cultural assets that contribute to the unique charm and small-town character of Healdsburg. Healdsburg's downtown is designed around a small, Spanish style plaza, one of the few existing in the United States today. Numerous buildings on the Plaza and in adjacent residential neighborhoods have historic significance.

The history and character of an area is often reflected in its architecture. The City of Healdsburg has made various commitments regarding historical preservation and protection. In 1981, the City began an extensive cultural resource survey which consisted of research on 1,500 Healdsburg area properties of which approximately 450 were selected for inclusion in the completed survey report. Published in 1983, the report--The Healdsburg Cultural Resource Survey Final Report--contains an extensive documentation of pre-1941 structures, objects and sites. These resources are evaluated for architectural, historical, and/or cultural significance according to the guidelines necessary for inclusion in the National Register of Historic Places.

The survey includes an overview of recent preservation activities in Healdsburg, an historic overview of settlement patterns in and around the city, and a summary description of the dominant residential, commercial, civic, and industrial architectural styles. It also includes discussions of

the various periods of human occupation and settlement, and an analysis of how the various architectural styles found in Healdsburg reflect local influences as well as national trends.

The Cultural Resource Survey methodology consisted of two distinct phases requiring approximately two years. Local volunteers, under the supervision of the Curator of the Healdsburg Museum, conducted most of the work, although limited intermittent professional assistance was integral to the project. Methods included reviews of historic census data, individual and group oral histories of 45 residents, and archival research of documentary historical information including newspapers, governmental records, Sandborn insurance maps, and assessor's parcel maps. Information was also solicited from property owners.

Information from the survey has been used in preparing a proposed amendment to the City Ordinance establishing an "HD Historic Combining District," in developing various public programs and historic publications, and in preparing a guide to historic resources. Seventy homes were selected as representative examples of local architecture and history and are now included in a self-guided tour in the publication Historic Homes of Healdsburg.

Dual criteria of architectural and historic significances were used in the selection of these 70 representative structures. Architectural styles ranged from Queen-Anne to Western Stick including Italianate, Gothic Revival, Mediterranean, Second Renaissance Revival, Victorian, Georgian, Mission Revival, Craftsman, Tudor Revival, and Carpenter Gothic. The five most common architectural styles are Queen-Anne, Italianate, Homestead, Greek Revival, and Neo-Classic.

Inventory

The following brief descriptions of these five most common architectural styles is abstracted from the Cultural Resource Survey and Historic Homes of Healdsburg. Its purpose is to convey the scope of this important community historic resource and to reflect its richness and value to the city.

● Queen-Anne Style - A Victorian House

Queen-Anne was the dominant style between 1880 and 1900. California and the cotton-rich states of the New South have the most fanciful examples. This style was named and popularized by a group of 19th century English architects led by Richard N. Shaw, although he and his followers had little to do with Queen Anne or the formal Renaissance architecture that was dominant during her reign (1702-1714). Instead, Shaw borrowed most heavily from late Medieval models, of the preceding Elizabethan and Jacobean eras.

There are 21 Queen-Anne style homes represented in Historic Homes of Healdsburg.

● Italianate Style - a Romantic House

Italianate was the dominant style between 1850 and 1880, preceding Queen-Anne Style. During this time, San Francisco grew from a village to a

principal sea port; most of its earliest town houses were constructed in wood and in this style. The style began in England, along with the Gothic Revival, as part of the Picturesque movement, a reaction to the formal classical ideals in art and architecture that had been fashionable for 200 years. The movement emphasized rambling, informal Italian farmhouses, with characteristic square towers, as models for Italian-style villa architecture.

There are 12 Italianate style homes represented in Historic Homes of Healdsburg.

- Homestead Style - Settlement Housing

There are numerous local examples of this most common type of Homestead Style structure, a form of settlement housing predominant between 1850 and 1875. Usually small, single-gabled dwellings that utilized planned redwood from the early sawmills and newly available machine cut nails, these homes are modest examples of early settlement by westward pioneers.

There are nine Historic Homestead Style homes represented in Historic Homes of Healdsburg.

- Greek Revival Style - a Romantic House

The popularity of Greek Revival during 1830-1850 led it to be eventually called the National Style. This style moved with settlers across the entire country as a domestic form of architecture reflected in front-gabled folk houses. Greece's involvement in their own war for independence (1821-1830) aroused much sympathy among newly independent Americans while the War of 1812 diminished American affection for British influence. Many public buildings in Philadelphia began and ended the Greek Revival movement. It was eventually replaced by the Gothic Revival and Italianate movements of the 1840's.

There are six Greek Revival Style homes represented among the 70 historic homes listed in the guidebook.

- Neo-Classic - an Eclectic House

Neo-Classic was the dominant building style throughout this country during the first half of the 20th century (1895-1950). There were two waves of popularity: 1) from 1900 to 1920 with emphasized hipped roofs and elaborate, correct columns; and 2) from 1925 to 1950 with emphasized side-gabled roofs and simple, slender columns. The revival of interests in Classical models dates from the 1893 World's Columbian Exposition in Chicago. The exposition's planner mandated a classical theme to which many architects responded. Soon these Neo-Classical models became the latest architectural fashion throughout the country, inspiring countless public and commercial buildings, as well as smaller Neo-Classical homes.

There are five Neo-Classic Historic homes represented in the guidebook.

Historic Preservation Ordinance

In 1986 the City of Healdsburg adopted a historic building code and established a Historic District (HD). The purpose of this district is to preserve, maintain, and enhance the historic integrity of designated areas within the city with historic significance or containing significant historic structures. The ordinance provides for review of proposed alterations and/or restorations of historically significant structures by the Design Review Commission, acting as the City's Historic Committee, and encourages public and private enhancement of historic districts through compatible street furnishings, restorations of privately owned and used buildings, and publicly supported landmarks. The Design Review Commission also has authority for final approval of projects undertaken under Title 24 of the California Architectural Code and Historic Building Code.

The areas included in the Historic District under this ordinance are shown in Figure VII-4. The Historic Ordinance also designates as "Designated Historic Buildings" the Gobbi Building at 310-316 Center Street and the Carnegie Library at 221 Matheson Street.

Officially Designated Historic Landmarks

At the present time there are no sites or structures within the Planning Area which are officially designated under either State or Federal authority. There are, however, several structures that apparently qualify, and applications for such designations should be undertaken in the near future.

Cultural Resources

The following list of cultural resources reflect only the principal resources of the community's cultural life. It is not intended to be an exhaustive list of cultural events or places.

● Plaza

The Healdsburg Plaza, centrally located downtown, offers the Hispanic community many cultural activities including annual fiestas and musical festivals. Although there are times when the majority of its users are Hispanics, the Plaza is a gathering place for all segments of the community. Historically, Healdsburg started growing with its Plaza. The Plaza has been, and should remain, a central part of the historic and cultural heritage of the city.

● Future Farmer's Fair

The annual Future Farmer's Fair gives testimony to the rich historical and cultural tradition Healdsburg has as an agricultural community. Held at Recreation/Giorgi parks each year, the fair offers educational benefits of livestock displays and other agricultural features.

- Parks and Recreation Program

Activities sponsored by the City Parks and Recreation Department are also valuable contributions to the cultural life of the City.

- Healdsburg Museum

Founded by Edwin Langhart, the City Museum specializes in the preservation of Northern Sonoma County history. Research on the population of Healdsburg and vicinity indicates that a surprising number of families that settled in Healdsburg in the latter half of the 19th century still reside in the area, providing a strong living link with the city's past.

- Wine Festival

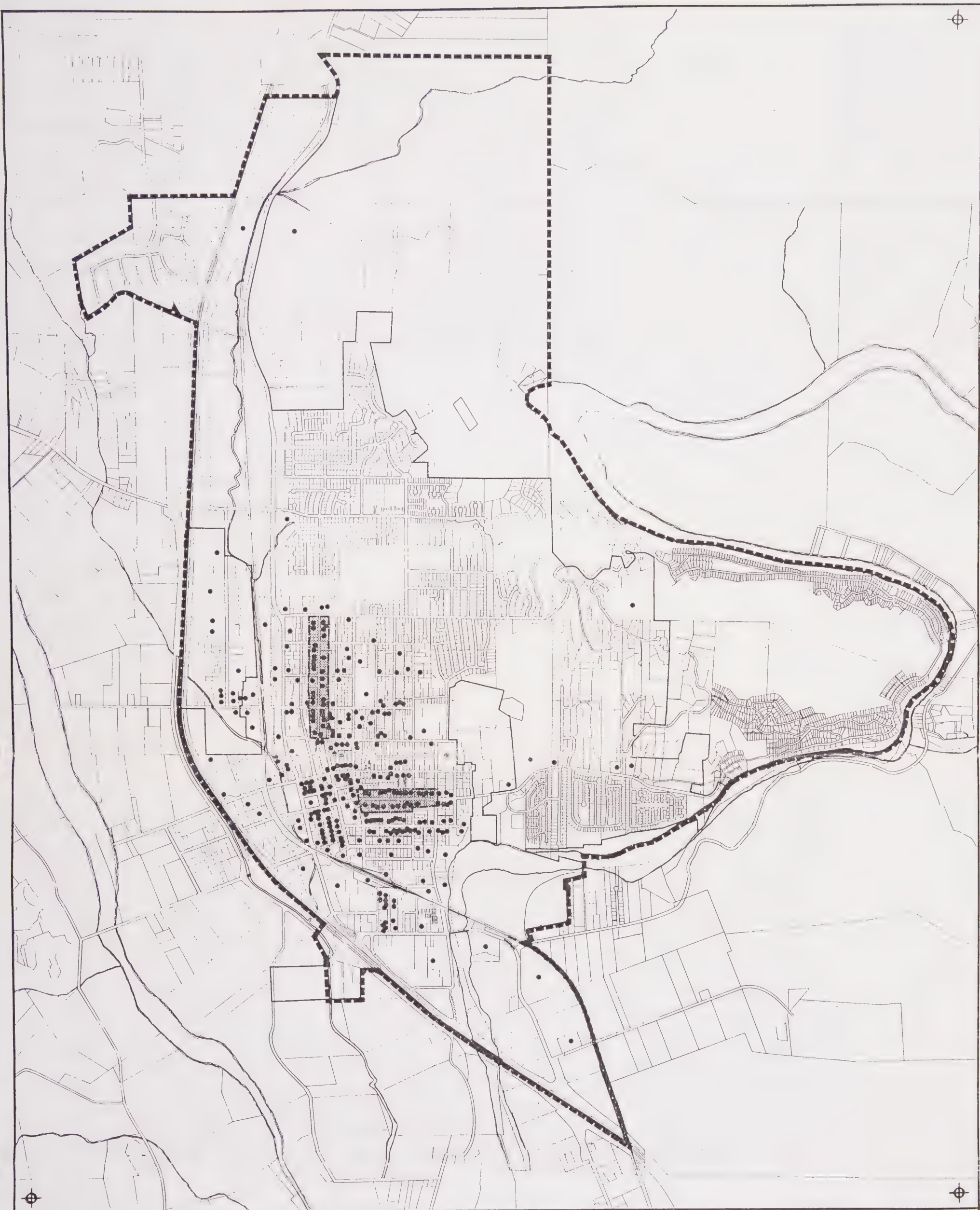
Since 1971, the Russian River Wine Festival has been held in the Plaza annually every May. The festival, cosponsored by the Healdsburg Chamber of Commerce and the Russian River Wine Road, features wine tasting, music, food and crafts. In 1985, 36 local wineries participated and an estimated 6-7,000 persons attended the festival.

ARCHAEOLOGICAL RESOURCES

Most archaeologists agree that Healdsburg sits atop Native American village sites of up to 12,000 years old. The traditional buildings exist only in facsimile because of their perishable building materials. The value of archaeological sites is that they aid in describing an area's prehistory. The prehistory of the North Coast Ranges is divided into three major periods: (1) the Paleo-Indian period, from 10,000 years B.C. to about 6,000 years B.C., characterized by an emphasis on hunting and a semi-sedentary or semi-nomadic life-style; (2) the Archaic Period, from about 6,000 years B.C. to A.D. 300, characterized by drier conditions and increasingly sedentary life-styles; and (3) the Emergent Period, from A.D. 300 until the coming of Euro-Americans in the 18th century, with similar climatic conditions to those today.

Archaeological sites representing the Paleo-Indian Period have not been found within the Healdsburg Planning Area and since so little archaeological work has been done to identify and date sites around Healdsburg, the question as to how far back in the Archaic Period sites extend could not be answered conclusively as of 1982.

Emergent Period settlement patterns of the lower Dry Creek watershed have been well described and documented by Professor Martin A. Baumhoff of University of California, Davis. Baumhoff found sites situated on terraces and knolls above streams, or on gentle slopes near a reliable water source. The north band of Dry Creek is a broad flat terrace or flood plain with remnants of a second, older terrace in many places. On the north band of Dry Creek, well developed midden sites with an eastern exposure have been found. These sites represent typical winter habitation. The south side of Dry Creek is characterized by a narrow, flat terrace that rises sharply to steep and rugged foothills. Surface scatters that probably represent summer encampments were recorded on the south bank of Dry Creek.



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

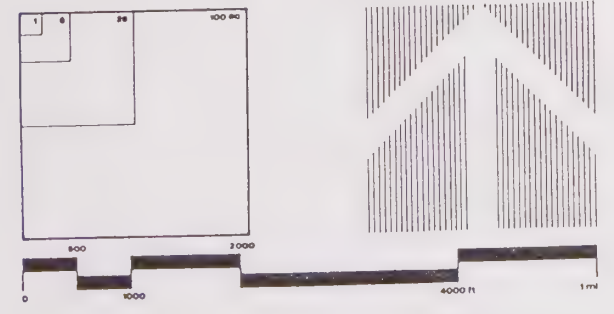


Figure VII-4. HISTORIC RESOURCES

- Historic Building or Site
- ▨ Areas Included in Historic District

Sources: Healdsburg Cultural Resource Survey, 1983;
Healdsburg Historic District Ordinance, 1986

Emergent period villages had a linear arrangement. Houses were strung out for up to two miles along a stream, often with an earth-covered semi-subterranean ceremonial/assembly structure at each end. Each village also had a semisubterranean sweat house, covered with earth, which looked like a natural earth mound. Dwellings were circular, constructed of tules, thatched, and had central hearths.

Much of the Healdsburg Planning Area is characterized by the floodplains of the river and its tributaries. The environmental setting of the area is typical southern North Coast Ranges mixed hardwood forests and valley oak savannah, an environment rich in natural resources. Riparian zones typically contain abundant natural resources valuable to human populations. Native Americans used these environs intensively. The Russian River Valley, in the late Emergent Period, was plentiful in resources and of temperate climate. In this drainage system from Cloverdale to Santa Rosa Creek lived the ancestors of the peoples we now call the Pomo and the Wappo. (Pomo meaning "people," and Wappo from the Spanish "guapo," meaning "good looking" or "brave").

The Lower Dry Creek drainage was surveyed for archaeological resources in 1975 as a part of the Warm Springs Cultural Resources Survey. This survey, along with other surveys and publications, describes and depicts the locations of 23 Native American settlements within the Healdsburg Planning Area, twelve of which have since been identified and recorded by professional anthropologists. It was also reported that along the Russian River in what is now Healdsburg, there were an unusual number of old villages that were abandoned and in ruins as a result of Euro-American contact. A great number of villages at the confluence of Dry Creek and the Russian River have also been recorded.

The village of Ba-ka-tsio was just south of the railroad depot at Healdsburg; one and one-half miles southeast of that village was Ka-towi ("at the lake") located on a small lake that is no longer in existence. Cu'takwi was on the north bank of the Russian River, southeast of Healdsburg. In the lower Dry Creek Valley to Geyserville were the Mahildaune (from "wani" meaning "hot:" "people of the hot springs") tribelet of the Southern Pomo; their principal village was Amalko. These are only a few examples of the many archaeological sites found within the Healdsburg Planning Area.

The Historic Period begins in northern California with the arrival of Russian traders, Mexican military forces, and Spanish missionaries in the late 18th century. Once the mission was established at Sonoma and the domain of General Mariano Vallejo established, the traditional lifeways of the Pomo and Wappo came to an abrupt end. Archaeological evidence of the historic settlement of Healdsburg in the 19th century includes the remains of dwellings, out buildings, trash pits, and other structures related to the domestic and commercial habits of early settlers. Only two of the probably many Historic Period archaeological sites have been formally recorded in the Planning Area. One is an early Historic Period cemetery on a terrace above the Russian River. The other is the site of remains of an early farm and winery. One site is listed as State of California Historical Landmark No. 893: the Walters Ranch Hop Kiln, located on Westside Road west of the City of Healdsburg.

As of 1982 there were 16 previously recorded archaeological sites within the Healdsburg Planning Area. Fourteen of these are prehistoric sites: six identified villages, six campsites, and two of unknown utilization. The remaining two sites are historical, as previously described. In addition, many more villages are known to have existed in ethnographic times but have not as yet been identified in the field by qualified archaeologists.

Urbanization has disturbed and perhaps entirely destroyed sites within Healdsburg, and threatens the sites along the east side of Dry Creek Valley, those at the foot of Fitch Mountain, and those southeast of Healdsburg. As Healdsburg feels and responds to the pressures to grow, the City must do so in a way compatible with the archaeological sensitivity of the area. To reconstruct the lifeways of the former inhabitants of the Healdsburg area and to gain understanding of cultural processes affecting these lifeways, archaeological sites must be identified, preserved and studied.

Inventory of Archaeological Sites

An updated archaeological sensitivity map of the Healdsburg Planning Area is being prepared by the California Archaeological Inventory, Northwest Information Center. This map will be limited to administrative use only, and will not be available for public use.

FINDINGS

- In spite of the substantial number of existing parks and recreation facilities and the high levels of use, there is a deficit of formally designated public parkland within the city, its Planning Area, and its sub-region within Sonoma County. When Monte Vista Park and the various public school playfields are included in the acreage of parkland, the deficit is significantly reduced. Nonetheless, there is both a current and projected need for additional public parks and recreation facilities.
- The Healdsburg Department of Parks and Recreation and others have recognized this condition and have identified a number of potential sites. As the City annexes additional lands, the location and size of parkland needs should be determined concurrent with such annexations so that park acquisition and/or dedication can be incorporated into or at least directly related to the annexation proceedings.
- Existing parks and recreation facilities are clustered into three geographic areas. One cluster consists of Recreation Park, Giorgi Park, the Junior High School, Healdsburg Elementary School, and the Boy's Club. A second cluster consists of Monte Vista Park, Healdsburg High School, and the municipal swimming pool, with an identified potential parksite located immediately to the west. The third cluster is composed of Healdsburg Memorial Beach, Railroad Park, and two adjacent potential parksite parcels. Although this clustering serves to provide a very strong, identifiable recreation area, it produces an uneven geographic distribution of recreation resources within the city. The issue of uneven distribution has not, however, been raised during

the various surveys of needs, or in discussions and interviews with various City officials. Future park planning should, nonetheless, recognize that recreation use patterns may shift to a greater neighborhood orientation with continued city growth, thus the questions of type and distribution of parks needs to be carefully considered.

The Healdsburg Parks and Recreation Department and the Healdsburg School Districts should be encouraged to work on joint/cooperative development of recreation facilities on School District lands at both existing and future school sites.

- In light of the increased interest in promoting and attracting greater tourism, the General Plan should seek to provide for the recreational needs of both residents and visitors without generating use conflicts. Furthermore, as outdoor recreation opportunities are strengthened, the General Plan should seek to weave parks and recreation facilities into an explicit open-space system.

Parks and recreation facilities and other important open-space areas such as riparian corridors would naturally constitute the core of this open-space network; pedestrian ways, bikeways, and scenic roadways would serve to link these elements into a coherent system. Therefore, in formally designating bikeways, jogging and walking paths, street tree programs, scenic highways, etc., the City should consider how these transportation and circulation elements contribute to an overall parks, recreation, and open-space system.

- Gentrification in historical districts can be a significant problem. Preservation of historic buildings should be integrated into the entire planning process with an equally intense commitment by the City to the provision of affordable housing. The displacement of low-income residents that has tainted many preservation projects should be avoided.

It is difficult to combine historic districting with provisions of affordable housing. This is an important historic and cultural point for the City of Healdsburg, in light of Healdsburg's Hispanic Community and working-class background. Survey results indicate that most Healdsburg local residents do not want their community transformed into a heavily promoted tourist area similar to Carmel.

- As discussed in Chapter X, Scenic Resources and Urban Design, the city needs to better integrate its strong complement of historic homes and commercial buildings with its more contemporary built-up areas and structures and with its urban open-space and landscaped areas. The large number of distinctive historic and older buildings constitutes a substantial resource which contributes significantly to the small-town, visual image and appeal of Healdsburg. This major historic and visual resource should be an important influence and determinant in formulating the General Plan, as it reflects both the small town human scale and pedestrian quality desired by the community's citizens and public officials.

- The destruction of archaeological resources has been an issue of increasing concern in recent years. In order to minimize the further loss of these important historic and cultural resources, the City has the opportunity to use the services of the California Archaeological Inventory to assist in the review of all plans and project proposals to ensure that archaeological resources are fully protected according to the requirement of state law.

Various portions of the state law are relevant to the protection of archaeological resources. The California Environmental Quality Act (CEQA) Guidelines state that public agencies should seek to avoid damaging effects on archaeological resources whenever feasible.

Avoiding such damage may be accomplished by many approaches, including: planning construction to avoid archaeological sites; planning parks and open-space areas to incorporate archaeological sites; "capping" or covering archaeological sites with a layer of soil before building tennis courts, parking lots, or similar facilities; and/or deeding archaeological sites into permanent conservation easements. If avoidance of important archaeological resources is not feasible, the CEQA Guidelines contain detailed provisions for developing excavation plans to mitigate significant effects.

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PERSONS CONTACTED

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- City of Healdsburg Parks and Recreation Commission
- Dale Puckett, Parks and Recreation Director, City of Healdsburg
- Nancy Weiss, Administrative Assistant, City of Healdsburg
- Christian Gerike, California Archaeological Inventory

CHAPTER VIII

NATURAL RESOURCES

INTRODUCTION

Healdsburg's natural resources--its air, water, agricultural lands and woodlands, fish and wildlife (and their habitats), and mineral resources contribute to the city's economy, and are key elements to the quality of life for Healdsburg residents. These resources support a wide range of recreational activities as well as providing direct economic value. The high scenic value of these resources is likewise important to residents and visitors.

This chapter provides an inventory of the city's natural resources, including water resources, soils and agricultural resources, vegetation and wildlife, minerals, and air quality, including an assessment of their current quality and value. Although no original research or field work was conducted in the development of this report, numerous published sources and many public agencies and individuals involved in natural resource planning and management in the Healdsburg area were consulted in preparing this chapter.

WATER RESOURCES

The quantity, quality, and availability of water is vital to both natural and human activities within the Healdsburg Planning Area. Water is essential to agriculture, to the development of housing, commerce, and industry, to recreation, and to the maintenance of high quality fish and wildlife habitats. Wise and prudent planning and management of water resources is fundamental to providing a sustainable economic base as well as providing important scenic amenities for the city.

The Planning Area contains a number of important water resources. The Russian River, several streams and reservoirs, a major groundwater basin, and a number of potable water supply sources constitute the principal water resources in the Planning Area.

Precipitation

The precipitation regime of Healdsburg is characterized by the dry summers and winter precipitation of the "Mediterranean Warm-Summer" climate region. At least 70 percent of the precipitation occurs during the period November through April. The city's average yearly precipitation is 43.6 inches.

Rivers and Streams

The city is located on the Russian River, one of the major rivers in Northern California, and one of four warm water rivers in the state. The Russian River is a critical and very heavily used water resource. Among the uses it supports are drinking water supplies, agricultural water, groundwater recharge, industrial and process water, water recreation, sport fishing, freshwater fish habitat (including migration route and spawning grounds), and wildlife habitat.

The Russian River, which originates in east-central Mendocino County, is augmented by water which flows into Lake Mendocino from the Eel River. Russian River flows are regulated by storage in Lake Mendocino and released at Coyote Dam. Runoff in the Russian River drainage closely follows the precipitation pattern, with peak flows occurring during the period November through April and low flows occurring May through October. The mean natural flow of the Russian River near Healdsburg was 787,400 acre-feet per year for the 60-year period of October 1910 through 1970. Coyote Dam was completed in 1959. In the 19 years preceding Coyote Dam's completion (1940-1958), there were five years when the mean summer low flows (July and August) were below 128 cubic feet per second (cfs). During this period the city thus experienced low flows in the Russian River during one out of every four years. Since the completion of Coyote Dam, both the mean and maximum summer flows have improved somewhat, although the minimum flows, particularly in dry years, pose some problems.

Healdsburg is located in an area which, due to geographic and climatic factors, has an average annual potential evapotranspiration of 18 to 30 inches and an average potential annual evaporation from water surfaces. The soil-water balance resulting from precipitation, actual evapotranspiration, soil-water recharge, and withdrawal of soil water yield an average annual water surplus (runoff) for the area of 24 to 40 inches. Unlike the largest urban and agricultural areas of California, there is no substantial local water deficit, thus it is not necessary to import water into the region.

Although the region has a water surplus, there has been considerable controversy over the minimum acceptable summertime flow in the river. In April 1986, the State Water Quality Control Board established new minimum flow requirements for the Russian River. These requirements set the minimum summertime flows at 185 cfs under "normal water supply conditions," with some exceptions; at 75 cfs under "dry water supply conditions;" and at 25 cfs under "critical water supply conditions." In 1984, a "dry" year, flows were reduced to 128 cfs in Healdsburg. Some wells went dry, and water available for fire protection outside of the city was only marginally adequate.

Low flow years present problems in terms of creating conditions favorable to algae blooms, which reduce the amount of dissolved oxygen in the water, thus posing a substantial threat to aquatic life. Low flows also pose problems in terms of human health hazards. One such area of major concern is the potential for fecal coliform bacteria associated with domestic sewage to contaminate the water. With reduced flows and velocity, the river has a reduced capacity to dilute and oxidize human wastes entering the river from septic disposal systems. This condition could lead to a higher concentration of pathogens in the river, constituting a serious health hazard.

There are potentially serious water quality problems in the Russian River resulting from the wastewater disposal in the Fitch Mountain area. In 1982, the North Coast Regional Water Quality Control Board (NCRWQCB) contracted with Ramlit Associates to conduct an assessment of the cumulative water quality impacts of wastewater disposal in the seven-county region. This assessment focused on areas identified by local health officials as posing public health problems. The assessment examined a number of factors,

including bacteria counts, nitrates, sewage loading, and public health risks. The Russian River/Fitch Mountain area was ranked as the sixth most critical problem area out of the 70 areas analyzed in the study.

Although nearly all of the homes in the Fitch Mountain area were built many years ago as summer cottages, most are now occupied year-round. There are over 700 subdivided lots and about 323 residential units in the area. Each of these houses generates approximately 225 gallons of wastewater per day. Most of this wastewater is disposed of in septic systems located within 1,000 feet of the edge of the Russian River. The potential impacts of this wastewater disposal leaching into the river is serious, especially given the age of many of the septic systems, the increasing likelihood of septic system failure, and the possibility of reduced summer flows in the Russian River.

There are failing septic systems in the area, and although the NCRWQCB has no substantial evidence of water quality problems, a waiver prohibition on septic systems is in effect in the Fitch Mountain area. This prohibition is based on the serious sewage disposal limitations of the area, and constitutes a virtual ban on building until such time that the problem is resolved. NCRWQCB has been studying the Fitch Mountain area through bacteriological sampling to determine the impact of septic failures.

Dry Creek, the largest surface and sub-surface tributary to the Russian River, borders the city to the west. Flows were historically sub-surface during the dry portion of the year, although continuous summer flows of 25 cfs will be maintained through storage and release of water from the Lake Sonoma.

Four intermittent streams are located within the planning area: Mill Creek, West Slough, Norton Slough, and Foss Creek. Foss Creek is the most significant of these four streams. The Foss Creek drainage encompasses virtually the entire City of Healdsburg east of Highway 101. Approximately 1,800 acres of its total drainage area of approximately 2,000 acres fall within the Planning Area, and includes nearly all of the 2,063 acres within the current city limits. The headwaters of Foss Creek are located within the Planning Area to the north of the city. Foss Creek flows directly through Healdsburg approximately parallel to the Northwestern Pacific Railroad tracks, with the east fork of the stream joining the mainstream just north of downtown. Foss Creek then joins Norton Slough, which is tributary to West Slough, and flows ultimately to the Russian River.

The watershed and sub-watershed boundaries of these surface water-courses are shown in Figure VI-4. The approximate amount of the Urban Service Area located within each watershed are as follows:

Foss Creek	1,800 acres
Russian River	1,560 acres
Drainage north to Alexander Valley	80 acres
West Slough	10 acres
Norton Slough	<u>50 acres</u>
TOTAL	3,500 acres

Groundwater

Over one-half of Sonoma County is underlain by groundwater basins. Healdsburg is located at the center of the "Healdsburg Area" of the "Santa Rosa Valley Basin." This 27-square mile basin is drained by the Russian River. The water-bearing material is younger and older alluvium. Well yields have an estimated maximum of 1,000 gallons per minute (gpm), with an average of 180 gpm. The basin depth is 0 to 250 feet, and the storage capacity is estimated to be 930,000 acre-feet, 67,000 of which is classified as "usable."

Average depth to water ranges from 28 to 38 feet for the approximately 500 domestic wells in the area; pumping rates of five to nine gallons per minute, sufficient for normal domestic use, are characteristic for these wells.

The extensive agricultural land use surrounding Healdsburg permits significant groundwater recharge from rains, receding floodwaters, and irrigation. As the city continues to develop and expand, the degree of natural recharge will decrease due to increased impervious surfaces, storm drains, and channels. Thus, some depletion of the groundwater basin will occur with additional development, although the retention of open-space and the use of dry-wells and other recharge facilities will minimize the amount of depletion.

The Dry Creek, Mill Creek, and Russian River drainages are all part of the major groundwater basin complex in this part of Sonoma County. Virtually all domestic and agricultural water in the area is supplied through this groundwater complex. Only in the easterly portion of the Planning Area have water shortages been reported.

Contamination constitutes another serious threat to the groundwater resource. Once contaminants enter an aquifer, they are difficult and costly, and sometimes impossible to remove. A recent incident of such groundwater pollution occurred recently in Healdsburg. In early 1982, Fairchild Semiconductor, located at 33 Healdsburg Avenue, notified the Regional Water Quality Control Board (RWQCB) that the solvent trichloroethylene (TCE) had been detected in its two irrigation wells located at the Healdsburg facility.

TCE, used as a solvent to clear silicon wafers at the Fairchild facility, has been identified by the U.S. Environmental Protection Agency (EPA) as a "Hazardous Substance" and as a "Priority Pollutant." The California Department of Health Services has established an action level to TCE in drinking water supplies of 5 ug/l.

Sampling by the RWQCB staff confirmed the presence of TCE in the two Fairchild wells and also found the solvent in a private domestic water supply well located between the Fairchild facility and the Russian River. The concentration of TCE in the affected groundwater zone ranged from 5 ug/l to 140 ug/l; the concentration in the private well was 49 ug/l.

In response to the problem Fairchild first altered the amount and type of solvent and revised its waste solvent handling practices. Fairchild also

provided an alternate water supply to replace the polluted domestic water supply well. In compliance with a RWQCB Cleanup and Abatement Order (issued in May 1982), Fairchild also conducted studies to determine the extent of the area of affected groundwater. Based on information developed through this study, Fairchild designed and implemented a plan to extract contaminated groundwater and treat it to remove TCE.

According to the RWQCB Executive Officer's Summary Report issued in December 1984, Fairchild's cleanup system was operating with excellent results, showing a measurable reduction of TCE in some of the "observation" wells. Discharge from the aeration process used to remove TCE from extracted groundwater showed that the concentration of TCE was being reduced to below the level that can be detected, approximately 0.5 ug/l.

Fairchild also obtained a RWQCB permit to discharge the treated groundwater into Foss Creek during the winter months (October 1 through May 14) in order to reduce the hydraulic load on Healdsburg's sewer system.

The City's treated wastewater is discharged into a large spent gravel pit near the confluence of Dry Creek and the Russian River. This disposal site is periodically monitored by the Regional Water Quality Control Board to determine any adverse effect on water quality. A new monitoring program was developed in May 1985 by the RWQCB, following a 10-year period when no systematic monitoring took place. This program is due to begin in October 1985.

Reservoirs

There are a number of artificial impoundments located in the Healdsburg area, although none constitute a significant water resource. The Rio Lindo Academy, located on the Digger Bend peninsula to the east, has a series of seven wastewater treatment ponds used for evaporation-percolation. An estimated 35,000 gallons of wastewater are discharged into these ponds each day. Eight ponds used for for water supply, irrigation, recreation, and/or frost protection, have been identified on privately owned land in the Planning Area.

Water Use

Water in the Urban Service Area is used primarily for municipal use--residential (including residential landscapes), commercial, and industrial uses--with limited agricultural water use. To comprehend the magnitude of water consumption relative to available supplies, it is useful to understand some basic units of water consumption. An average dwelling unit in Healdsburg uses approximately 240 gallons of water per day, or about one-quarter of an acre-foot per year. An acre-foot is a standard measurement of the volume of water required to cover one acre of land at a depth of one foot, a volume of 325,851 gallons. Water use on a one-acre single family lot could increase to one-half to one acre-foot per year due to increased irrigation.

Agricultural water use depends on several factors: climate (precipitation and temperature), crop and soil type, land management practices, and topography. Total agricultural water demand for wine grapes and prunes, the

two crop types in the Healdsburg area, is estimated to be 1.5 to 2 acre-feet per year. In years with normal precipitation, vineyards and orchards receive approximately .5 to 1 acre-foot/acre/year from natural storage of water in the underlying soil, thus the water consumption from irrigation would be approximately 1 acre foot/acre/year.

Prior to the dry years of 1977 and 1978, frost protection, in the form of sprayed water, was necessary in two out of every five years. Although this crop protection (and water consumption) has not been necessary during the past five years, there are signs that the climatic regime is returning to its pre-1977 characteristics and that frost protection will again become necessary. Although the water demand for frost protection can vary considerably depending on the frequency and duration of frosts, a .5 acre-foot/acre/year is a reasonable estimate of average demand. Water is also utilized in meeting cooling requirements for some agricultural growers, thus the average supplemental water use (over basic crop growing requirements) is approximately .5-1 acre-foot/acre/year, for a total water consumption demand of 1.5 to 2 acre-feet/acre/year.

On a comparative basis, these agricultural crops use between 2 to 3 acre-feet/acre annually, and, at an average density of 5 units/acre, a residential development would consume approximately 1.25 acre-feet/acre per year. Although residential uses consume less water, agricultural uses serve to recharge groundwater supplies, thus the "net" consumption of agriculture is likely to be less than residential uses.

Potable Water Supply

Seven centralized water systems and an estimated 500 domestic wells provide the potable water supply for the Healdsburg area. The area's water systems are described in Chapter VI, Public Facilities and Services.

SOIL AND AGRICULTURAL RESOURCES

Agriculture has historically been the cornerstone of Healdsburg's economy. Sonoma County is among the few regions in the United States where the soils and climatic regime combine to create an environment ideally suited for the production of premium wine grapes. The fertile valley lands around Healdsburg possess this unique combination of characteristics, and today are increasingly being planted in vineyards, although there are also orchards and row and forage crops. Prime agricultural soils are central to this agricultural productivity and are among Healdsburg's most economically valuable natural resources.

Soils

For many years, reports and soil maps prepared by the US Soil Conservation Service (SCS) have been the primary source of information for identifying lands suitable for agricultural uses. The SCS developed a classification system which differentiates soils according to their capacity to be put into cultivation. This nationwide "Land Capability Classification" organizes soils into eight major capability classes designated by Roman numerals I through VIII.

Class I and II lands include those soils that have few limitations, the widest range of use, and the least risk of soil deterioration. The other soil classifications have progressively greater natural limitations. All of the land in Classes I and II is considered prime agricultural lands. These lands are highly conducive to agricultural production because they require little or no special treatment other than normal, good soil management.

Class III land is suitable for cultivated crops but requires additional attention to offset or overcome inherent soil limitations. Class IV soils are considered suitable for limited cultivation. The lands in Classes V, VI, and VII are best adapted to range and woodland plants. The lands in Classes V and VI can be put into agricultural cultivation; however, improvements to soil fertility through planting, seeding, and/or frequent fertilizing make range or woodland improvements impractical. Under proper management, these lands could be used for grazing, woodland, or wildlife habitat. Class VII lands have severe restrictions, such as very shallow, stony soils, extremely rocky areas or exceedingly steep slopes, that preclude commercial use of the land.

The 1972 Soil Survey of Sonoma County prepared by the SCS indicates that there are 38 soil series within the Urban Service Area. Class I-IV, and Class VI-VIII soils are all found within the Urban Service Area. Figure VIII-1 shows the location of Class I and II soils. The permeability of soils in the Planning Area ranges from very slow to slow, and the runoff rate varies from slow to rapid. Erosion is not a major concern, for although there are approximately 600 acres of land with high erosion hazard soils in the Urban Service Area, the high hazard soils occur almost exclusively on lands with greater than 30 percent slope. Figure VIII-1 shows the location of high erosion soils. Such lands would not be subject to either agricultural uses or residential development.

In terms of engineering properties, such as strength and compressibility, and development limitations posed by septic considerations, Urban Service Area soils rate medium to poor. Although the engineering properties do not constitute significant constraints on development, all soils in the Planning Area have severe limitations in terms of their capacity to accommodate septic system disposal fields. Areas not served by city sewers are thus substantially constrained in terms of their development potential.

In 1980 the California Department of Conservation, Division of Land Resource Protection, began work to supplement of the SCS conservation programs. Specifically, the Department began a Farmland Mapping and Monitoring Program. This program, designed to inventory important farm and grazing lands in the form of Important Farmland Series maps, became California law in 1982. Its purpose is to monitor conversion of the state's agricultural land to and from agricultural use, and to report such conversions to the legislature, local government, and the public. Advisory guidelines and preliminary maps were published by the Department of Conservation in 1984.

The Guidelines identify five categories of farmlands: Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance, and Grazing Lands. The Department of Conservation defines these five categories as follows:

Prime Farmland is land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops within the last three years. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Farmland of Statewide Importance is land other than Prime Farmland which has a good combination of physical and chemical characteristics for the production of crops. It must have been used for the production of irrigated crops within the last three years. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Unique Farmland is land which does not meet the criteria for Prime Farmland or Farmland of Statewide Importance, that is currently used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

Farmland of Local Importance is either currently producing crops, or has the capability of production. Farmland of Local Importance is land other than Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. This land may be important to the local economy due to its productivity. It does not include publicly owned lands for which there is an adopted policy preventing agricultural use.

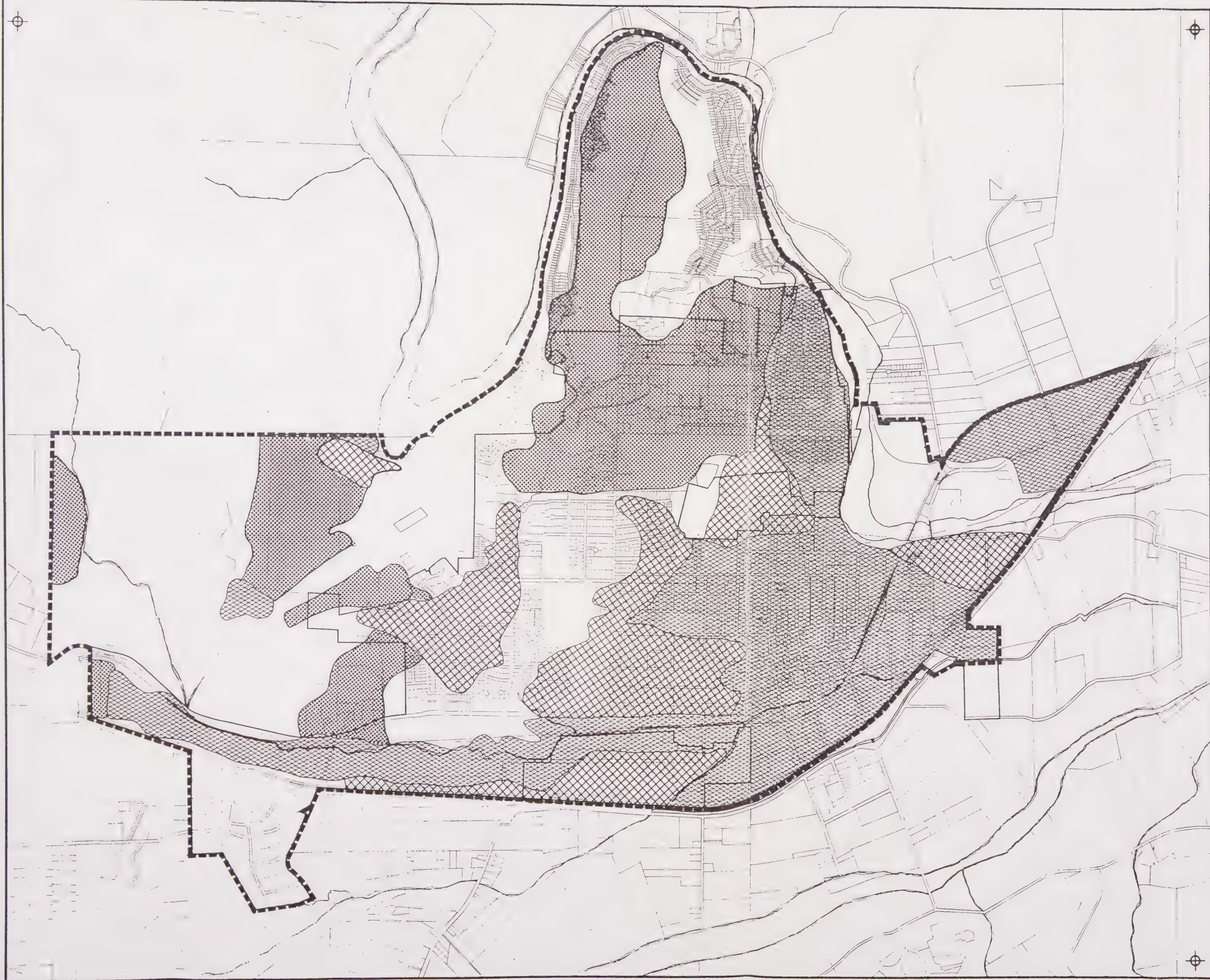
Grazing Land is defined in California Government Code Section 65570 (b)(2) as:

...land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.

The minimum mapping unit for Grazing Land is 40 acres.

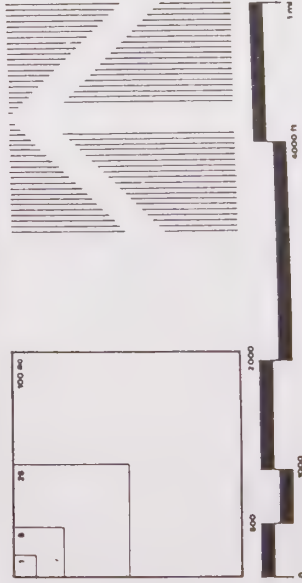
These five categories are mapped on 1:100,000 scale maps based on soil characteristics and/or existing use. Mapping has been completed for all of Sonoma County.

All five categories are present in the Healdsburg Urban Service Area. There are five areas (approximately 155 acres) identified as Prime Farmlands, two areas (approximately 40 acres) classified as Farmland of Statewide Importance, two areas (approximately 70 acres) identified as Unique Farmland, and four areas (approximately 105 acres) identified as Farmland of Local Importance. In addition, most of the northern and northeastern part of the Planning Area is identified as Grazing Lands (approximately 510 acres). Figure VIII-2 shows the location of these lands.



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**Figure VIII-1. SOILS - CROP CAPABILITY
CLASS & EROSION HAZARD**

CROP CAPABILITY CLASS

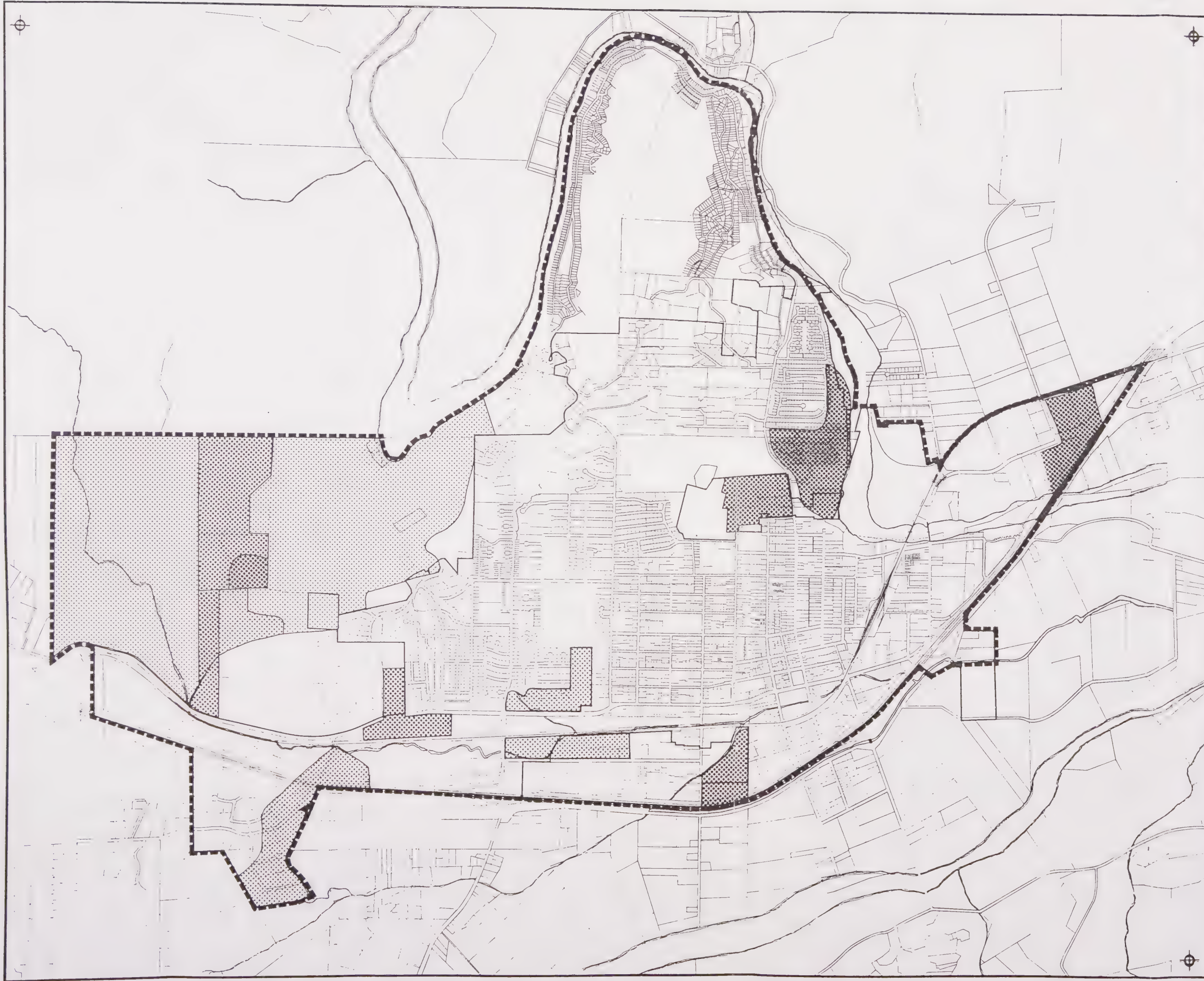
XXXX Class I Soils

XXX Class II Soils

XXXXX EROSION HAZARD

XXXXX High & Very High Erosion Hazard

Source: U.S. Soil Conservation Service, Soil Survey of Sonoma County, 1972



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Figure VIII-2. IMPORTANT FARMLANDS

- Prime Farmlands
- Farmlands of Statewide Importance
- Unique Farmlands
- Farmlands of Local Importance
- Grazing Lands

Source: Draft Important Farmland Map for Sonoma County,
California Department of Conservation, 1984

Growing Season

The Healdsburg Planning Area is located in the "Mediterranean Warm-Summer" climate region. The precipitation pattern of this climate is described in the subsection on precipitation in the water resources section of this chapter. The temperatures in this climatic region are characterized as "mild," with the coldest month having an average temperature under 64.4 degrees F, but above 26.6 degrees F. The average temperature for the warmest month is characteristically below 71.6 degrees F for a Mediterranean Warm-Summer region. During the period 1951-1974, Healdsburg reported only 18 days when the minimum temperature was below 32 degrees F. The average daily maximum and minimum temperatures over this period were 73.3 degrees F and 45.9 degrees F, respectively, with an average monthly temperature of 59.8 degrees F. This climate regime thus constitutes an excellent growing season for the region.

Existing Agricultural Land Use

An inventory of land managed for agricultural use was undertaken in conjunction with the development of the 1982 Open Space Report. This inventory identified the location and approximate acreages of land used for grazing and crop cultivation in the Urban Service Area. The data developed through the inventory came from a number of sources, including the 1978 Healdsburg General Plan, the Sonoma County Assessor's office, 1980 aerial photographs, and field reconnaissance. These data were field checked and updated by the Consultant Team in May 1985.

Currently, there are approximately 180 acres planted in either orchards or vineyards within the Urban Service Area. This agricultural land use is distributed over 27 areas, parcels or portions of parcels, the largest of which is 17.5 acres, and the smallest approximately 6.6 acre. The average planting area size is 6.6 acres, although the median size is only 3.5 acres. An additional approximately 770 acres are in grazing use. These grazing acres are all located on large parcels in the north and northwest portions of the Urban Service Area. Figure VIII-3 shows the location of these agricultural lands.

Although these data are approximations, they represent the only available published source of information of actual agricultural land uses in the Urban Service Area. The figures for pasture land are considered to be the least precise due to the fact that grazing uses are interspersed on lands within the hilly areas to the north and east of the city. These areas consist of low density rural residential uses with associated truck gardens, berry cultivation, Christmas tree farms, small orchards, and pastureland.

Factors Affecting Agricultural Production

The use of agricultural land in Sonoma County in general, and the Healdsburg Planning Area in particular, is subject to a number of both direct and indirect influences. The principal factor with a direct and immediate effect is the conversion to urban land uses. Factors with indirect effects are less immediate and not as obvious. The imbalance between agricultural land values and farm income, water-use conflicts, limited water supply, the fragmentation of agricultural acreage into uneconomically small parcels,

zoning and regulatory practices, and the proximity of urban uses can all have indirect effects on agricultural production. In the case of the orchards and vineyards in the Planning Area, the use of herbicides and pesticides may pose serious conflicts over time as residential and other urban uses intensify contiguous to these agricultural uses.

Agricultural Land Values

The relationships among agricultural land values, farm incomes and taxation, are central to the viability of agriculture. An imbalance in agricultural land values, farm incomes and taxation is considered to be a central factor in the conversion of farmland to non-agricultural uses. An economic calculus of these relationships is particularly difficult due to the inherent complexities of determining the market value of land for different uses, the tax structure, and the many factors contributing to net farm income.

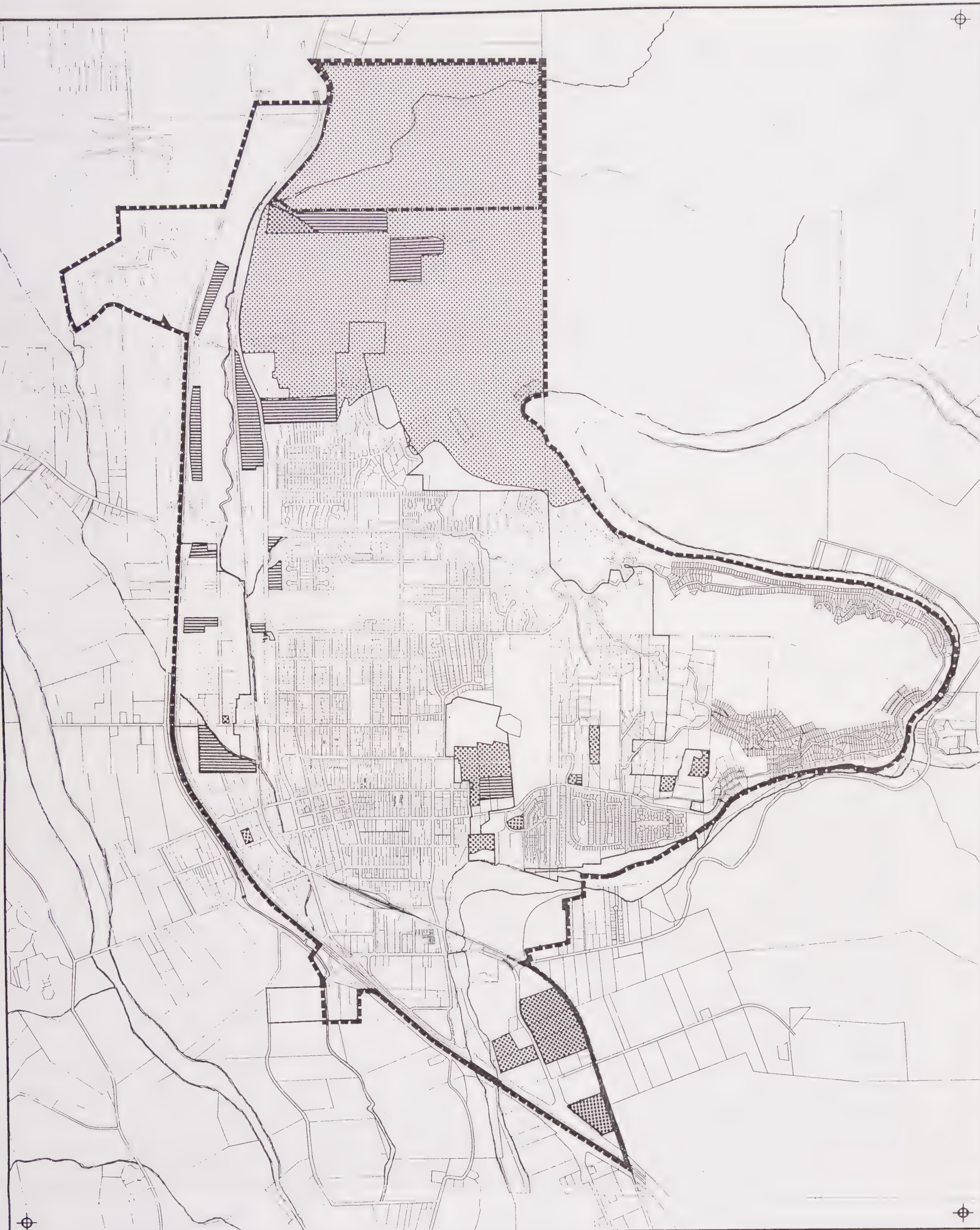
Agricultural lands can be valued as a factor in the production of commodities or as a commodity for other forms of land development. When treated as a factor in the production of commodities, the value of agricultural land is determined by a number of factors. Physical parameters, such as topography, soil quality, availability of water, growing season, drought periods, and other natural factors contribute to its value. Geographic factors such as distance to markets and access to transportation facilities are also important factors. Land management practices (soil conservation practices such as drainage, crop rotation, use of cover crops, etc.) likewise contribute to land value. Finally, the condition of local, regional, national, and international commodity markets has a profound effect on the value of farmland.

Since the size of the parcels in agricultural production in the Planning Area is very small compared to commercial agricultural operations, the question of agricultural land values is difficult to determine. This is particularly true since even the largest area (17.5 acres) is well below the 40 acre minimum rule of thumb for a small commercial operations. The acreages within the Planning Area may, however, have important income supplementary value or may be primarily used for personal consumption or vocational purposes.

Zoning and Regulation Affecting Agricultural Lands

Zoning and other regulatory practices may encourage conversion of agricultural lands to non-agricultural uses. This is particularly true when parcels contiguous to or surrounding agriculturally used land can develop to more intense, incompatible uses, resulting in higher urban use values for the agricultural parcels.

There is one parcel under a Williamson Act contract within the Urban Service Area, a 295 acre parcel (the Passalacqua property), located at the northern edge of the Urban Service Area. This property is identified in Figure VIII-3. In 1986, the owners of this property filed for non-renewal of the Williamson Act contract, beginning a nine-year "roll-down" period.



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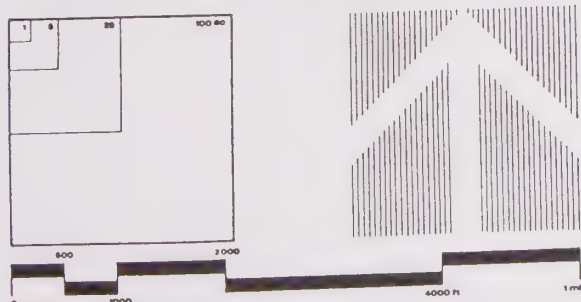






Figure VIII-3. LAND IN AGRICULTURAL USES

-  Orchard
-  Vineyard
-  Grazing
-  Land Under Williamson Act Contract

Source: City of Healdsburg Open Space Committee, Survey of Agricultural Lands, 1982 (Field Verified by Consultant Team, 1985)

VEGETATION AND WILDLIFE RESOURCES

Sonoma County is part of the "North Coast and Montane" Ecological Province as defined in CALVEG, a Classification System of California Vegetation developed cooperatively by the US Forest Service (USFS), the US Bureau of Land Management (BLM), and the California Department of Fish and Game (CFG). The natural vegetation of the County is classified into six physiognomic types: Conifer Forest; Hardwood Forest; Woodland; Chaparral; Soft Chaparral; and Herbaceous. These vegetation types are expressions of the general physical characteristics of the vegetation. Each type is further disaggregated into a vegetation "series" defined by the dominant overstory species (based on percent composition).

The county's diversity of vegetation types reflects a substantial range of physical and biotic factors. This vegetation mosaic includes forest lands used for the production of timber; forest and woodlands which provide habitat for a rich complement of wildlife; lands which provide important open-space uses including grazing; and lands characterized by high scenic value.

Natural Plant Communities

A detailed local inventory of vegetation in the Urban Service Area was conducted in conjunction with the preparation of the 1982 Open Space Report. This inventory was based on information acquired from a variety of sources, including photographs, reports from data from the California Native Plant Society, and Soil-Vegetation Maps from the California Department of Forestry. Field investigations were also conducted to verify and expand upon published information. Although the inventory is intended to provide only an overview each vegetation-type and is not an exhaustive inventory, it is the most specific and useful source of information on natural vegetation in the Healdsburg Urban Service Area.

The inventory consists of five vegetation types: riparian corridor; mixed evergreen forest; oak woodland; oak savannah; and chaparral. Figure VIII-4 shows the geographic location of these vegetation types plus the location of lands in agricultural uses: vineyards; orchards; and grasslands for grazing. The natural vegetation types define groups of plants which associate together and constitute a "plant community." There is a corresponding group of birds and animals that utilize each plant community as its "habitat." This association of plants and animals constitutes a "biotic community," an association of plants and animals sharing the same environmental conditions and distinguishable from other biotic communities. The term is a functional term in that it recognizes the interactions that occur among and between plants and animals (competition, food supply, predation, etc.) in a community.

Biotic Communities

Appendix A to the 1982 Open Space Biology Report contains 82 pages of highly detailed information on the species of flora and fauna found in the Healdsburg Planning Area and their approximate geographic distribution. Although this information is excellent, it is too detailed for the purposes of developing the General Plan. It has, therefore, been summarized in the following subsections.

a. Flora

The species identified below constitute the principal species found within the Planning Area. The vegetation type (or types) in which the species is commonly found is also listed for each species using the following abbreviations: Riparian = R; Mixed Evergreen Forest = ME; Oak Woodland = OW; Oak Savannah = OS; and Chaparral = C.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Vegetation Type</u>
Coast live oak	<i>Quercus agrifolia</i>	OW, OS, C, R
Chamise	<i>Adenostoma fasciculatum</i>	C
Red alder	<i>Alnus rubra</i>	R
Common manzanita	<i>Arctostaphylos manzanita</i>	C
California black oak	<i>Quercus kelloggii</i>	OW, OS, R
Coyote brush	<i>Baccharis pilularis</i>	
	<i>consanguinea</i>	C
Canyon live oak	<i>Quercus chrysolepis</i>	OW, OS, C
California hazelnut	<i>Corylus cornuta californica</i>	ME
Scotch broom	<i>Cytisus scoparius</i>	C
Ceanothus	<i>Ceanothus sp.</i>	C
Douglas-fir	<i>Pseudotsuga menziesii</i>	ME
Blue oak	<i>Quercus douglassii</i>	OW
Northern bush monkey flower	<i>Mimulus aurantiacus</i>	C
Digger pine	<i>Pinus sabiniana</i>	C
Oregon ash	<i>Fraxinus latifolia</i>	R
Oregon white oak	<i>Quercus garryana</i>	OW
Grasses and other herbaceous	Meadow plants	Grassland
California buckeye	<i>Aesculus californica</i>	R
Black walnut	<i>Juglans hindsii</i>	(in city)
California bay laurel	<i>Umbellularia californica</i>	R
California honeysuckle	<i>Lonicera hispidula vacillans</i>	R
Madrone	<i>Arbutus menziesii</i>	ME, OW
Big leaf maple	<i>Acer macrophyllum</i>	ME, R
Toyon, Christmas berry	<i>Heteromeles arbutifolia</i>	R
Fremont cottonwood	<i>Populus fremontii</i>	R
Monterey pine	<i>Pinus radiata</i>	(in city)
Bracken fern	<i>Pteridium aquilinum pubescens</i>	R
Shrub coast live oak	<i>Quercus agrifolia frutescens</i>	C
California scrub oak	<i>Quercus dumosa</i>	C
Interior live oak	<i>Quercus wislizenii</i>	C, OW, OS
Shrub interior live oak	<i>Quercus wislizenii frutescens</i>	C
Coast redwood	<i>Sequoia sempervirens</i>	ME
Poison oak	<i>Toxicodendron diversilobum</i>	(all types)
Wood rose	<i>Rosa gymnocarpa</i>	R
Willow	<i>Salix sp.</i>	R
Valley oak, California white oak	<i>Quercus lobata</i>	R, OW, OS

b. Fauna

The following species are among the most common among the frequently observed fauna of the Planning Area:

<u>Common Name</u>	<u>Scientific Name</u>
Mule Deer	<u>Odocoileus hemionus columbianus</u>
Stripped Skunk	<u>Mephitis mephitis</u>
Opposum	<u>Didelphis marscupialis</u>
Raccoon	<u>Procyon lotor</u>
Jack Rabbit	<u>Lepus californicus</u>
Cottontail Rabbit	<u>Sylvilagus auduboni</u>
California Ground Squirrel	<u>Citellus beecheyi</u>
Western Grey Squirrel	<u>Sciurus griseus</u>
Broad-footed Mole	<u>Scapanus latimanus</u>
Western Fence Lizard	<u>Sceloporous occidentalis</u>
Bullfrog	<u>Rana catesbeiana</u>

The following species are among the most common visible avifauna found in the Planning Area:

<u>Common Name</u>	<u>Scientific Name</u>
Mallard Duck	<u>Anus platyrhynchos</u>
Red-winged Blackbird	<u>Agelaius phoeniceus</u>
Common Crow	<u>Corvus brachyrhynchos</u>
Western Meadowlark	<u>Sturnella neglecta</u>
Starling	<u>Sturnus vulgaris</u>
American Robin	<u>Turdus migratorius</u>
Mourning Dove	<u>Zenaidura macroura</u>
California Quail	<u>Lophortyx californicus</u>
Mockingbird	<u>Mimus polyglottos</u>
Turkey Vulture	<u>Cathartes aura</u>
Tree Swallow	<u>Iridoprocne bicolor</u>
Steller's Blue Jay	<u>Cyanocitta stelleri</u>
Western Bluebird	<u>Sialia mexicana</u>

C. Special Flora and Fauna

The following species found within or near the Urban Service Area have been classified as "special animals" by the California Department of Fish and Game. These species have been identified by Biologist, Robin Wood of Healdsburg, and through the Natural Diversity Data Base. Each species is assigned a data base priority, depending on its status vis-a-vis rare, threatened, endangered, etc. It should be noted that not all of the species in the list have been officially designated by the State or federal government. These priorities and their abbreviations are as follows:

- A1.1 Extremely rare, endangered, and unprotected species
- A1.2 Extremely rare and threatened species
- A2.1 Very rare, endangered, and unprotected species
- A2.2 Very rare and threatened species
- B1.1 Rare and endangered species or extremely rare, endangered or threatened species
- B2.1 Uncommon and threatened species or rare and endangered subspecies
- B2.2 Rare and not threatened, or peripheral and endangered in California only, species or rare and threatened subspecies

- B3.1 Uncommon and declining, or peripheral and threatened in California only, species or uncommon and threatened, or peripheral and endangered in California only, subspecies
- B3.2 Wide-spread and declining species or uncommon and declining, or peripheral and threatened in California only, subspecies
- BU Possibly threatened, needs more information
- FE Federally listed endangered species
- CE California listed endangered species
- CP California listed protected species

<u>Common Name</u>	<u>Scientific Name</u>	<u>Priority</u>
Riparian Bush Rabbit*	<u>Sylvilagus bachmani riparius</u>	BU
Double-crested Cormorant	<u>Phalacrocorax auritus</u>	B3.2
Great Blue Heron	<u>Ardea herodias</u>	BU
Great Egret	<u>Casmerodius albus</u>	BU
Snowy Egret	<u>Egretta thula</u>	BU
Black-crowned Night Heron	<u>Nycticorax nycticorax</u>	BU
Wood Duck	<u>Aix sponsa</u>	B3.2
Cooper's Hawk	<u>Accipiter cooperii</u>	B3.2
Sharp-shinned Hawk	<u>Accipiter straitus</u>	B3.2
Black-shouldered Kite	<u>Elanus caerulea</u>	CP
Southern Bald Eagle	<u>Haliaeetus leucocephalus</u>	CE, CP, FE
Osprey	<u>Pandion haliaetus</u>	B3.2
American Peregrine Falcon	<u>Falco peregrinus anatum</u>	CE, CP, FE
California Gull	<u>Larus californicus</u>	B2.2
Caspran Tern	<u>Sterna caspa</u>	B3.1
Pileated woodpecker	<u>Dryocopus pileatus</u>	B3.2
Yellow Warbler	<u>Dendroica petechia</u>	B3.2
Yellow-breasted chat	<u>Icteria virens</u>	B3.2
Hardhead	<u>Mylopharodon conocephalus</u>	B3.2
Sacramento Perch	<u>Anchoplites interuptus</u>	B1.2
Russian River Tule Perch	<u>Hystercarpus traski pomo</u>	B3.2

*Tentative sighting reported.

In addition to the individual species listed above, there is an unusual chaparral plant community associated with the serpentine geologic formation (north of the city limits) which warrants attention as a special habitat area. Serpentine soils contain unusually large amounts of magnesium, iron, chromium and nickel which create inhospitable conditions for plant growth. Nonetheless, there is a unique series of flora which have successfully colonized serpentine soils and which with the soils constitute a serpentine ecological complex.

Although the outcrops of serpentine are distributed abundantly throughout California, the flora growing on serpentine is unique to regional and local climate and geology. Thus, the serpentine flora is a valuable scientific resource and, at the same time, constitutes a considerable development constraint due to the high soil toxicity and extreme difficulty in getting non-serpentine species to survive in the hostile soil environment.

All riparian corridors should likewise be considered special habitat areas. In particular, the riparian habitat along the Russian River and the River itself serve as a nesting and foraging site for a considerable number of special and rare and endangered fauna species, including Great Blue Heron, Great Egret, Snowy Egret, Black-crowned Night Heron, Wood Duck, Southern Bald Eagle, Osprey, Yellow Warbler, and Yellow-breasted Chat.

Heritage Trees

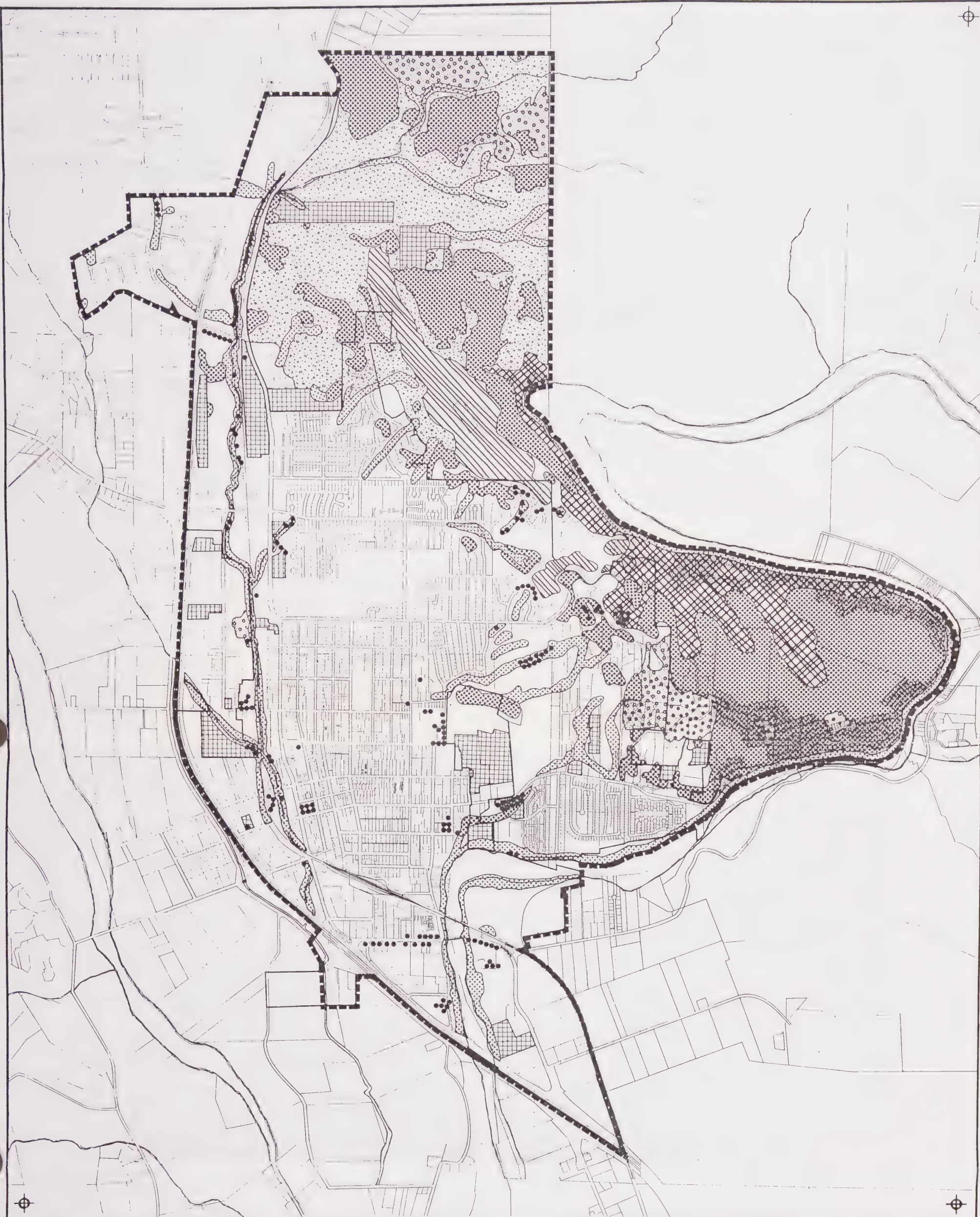
A 1982 field reconnaissance of flora and fauna conducted by the Healdsburg Open Space Committee also identified a substantial number of heritage size trees protected by City Ordinance No. 658. This ordinance protects trees having a diameter of 30 inches or greater, measured at two feet above the level of the ground. A City permit is required before pruning or cutting any of these trees. The permit is issued only when a tree is incurably diseased, in danger of dropping limbs or falling, poses a similar hazard, or, for reasons of economic necessity in constructing improvements or relandscaping. The locations of these heritage trees are shown in Figure VIII-4.

Rare and Endangered Species

Information available on federal or state listed rare and endangered plant and animal species confirms that there are two known occurrences of animal species. One endangered species, the American Peregrine Falcon (*Falco peregrinus anatum*), has had a critical habitat area designated in the Dry Creek Area by the federal government. A second species, the Southern Bald Eagle (*Haliaeetus leucocephalus*) has been occasionally seen in the Healdsburg area.

The most recent and systematic review of the literature on rare plants is contained in the 1982 Open Space Report. This review sets forth a list of rare plant species recorded as occurring in the general vicinity of Healdsburg, although none are found within the Planning Area:

<u>Astragalus breweri</u>	Brewer's Locoweed
<u>Calochortus uniflorus</u>	Pink Star Tulip
<u>Calycadenia oppositifolia</u>	Butte County calycadenia
<u>Cypripedium montanum</u>	Mountain Lady's Slipper
<u>Caenothus confusus</u>	Rincon Ceanothus
<u>Lasthenia burkei</u>	Bruke's Goldfields
<u>Pogogyne douglasii</u>	
ssp. <u>parviflora</u>	Douglas' Pogogyne
<u>Stylocline amphibola</u>	
(Micropus <u>amphibola</u>)	Mt. Diabie Cottonweed
<u>Juglans hindi</u>	Northern California Black Walnut



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GENERAL PLAN

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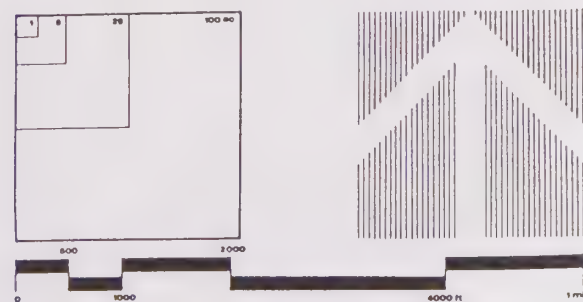










Figure VIII-4. VEGETATION TYPE

- | | | | |
|---|--------------------------|---|----------------------|
|  | Mixed Evergreen Forest |  | Orchards & Vineyards |
|  | Oak Woodland |  | Heritage Trees |
|  | Oak Savannah | | |
|  | Chaparral | | |
|  | Riparian | | |
|  | Grassland (Grazing Land) | | |

Source: City of Healdsburg Open Space Committee Report-Robin Wood, 1983; Consultant Team, 1985

Factors Influencing Vegetation and Wildlife Resources

The most important factor regarding the conservation of natural vegetation and wildlife is the physical pre-emption and removal of the natural landscape through land development. Urban runoff into streams and rivers is an important factor influencing the quality of aquatic life via siltation and the introduction of toxic materials. The use of pesticides and herbicides is also a factor in terms of habitat modification for birds and small mammals, which are important food sources to carnivores and birds of prey.

Changes in both surface and groundwater hydrologic conditions (through increased runoff from impervious surfaces, stream channelization, etc.) can have a substantial effect on vegetation, thus the maintenance of water resources is likewise central to vegetation and wildlife resources. The introduction of exotic species into the natural landscape can similarly affect both flora and fauna, and significant numbers of unconstrained domestic pets and feral animals can have a substantial effect on small mammal and bird populations.

MINERAL RESOURCES

Although small deposits of graphite and limestone have been found near the western boundary of the Urban Service Area, sand and gravel mining is the major extractive industry. Gravel deposits line the stream beds and banks of the lower three miles of Dry Creek and much of the length of the Russian River. There are three companies operating in the area, the largest of which, Syar Industries, Inc., extracts about 500 tons per hour from a site near Bailhache Avenue. The other operations involve the extraction of smaller volumes of material from Dry Creek. Syar also operates two asphalt plants in Healdsburg. One plant has a 2400 ton/day capacity to extract sand and gravel; the other plant has a 1400 ton/day capacity.

Factors Influencing Mineral Resources Development

The widespread use of sand and gravel in the construction of roads and buildings, combined with the high transportation costs of these materials makes deposits near metropolitan areas particularly valuable. In many locations such deposits have been preempted by development before this resource could be used, thus depriving developing areas of lower cost building materials. Stringent nuisance ordinances also influence the development of mineral resources, and can force companies to abandon accessible, high quality deposits.

Surface Mining and Reclamation Act

The State Surface Mining and Reclamation Act requires cities and counties to regulate specified mining operations, with approval of a reclamation plan as a condition for issuance of a mining permit. Local ordinances adopted to implement this requirement must be reviewed and certified by the State Mining and Geology Board as to their conformity with state law and the Board's policies and procedures.

The Act also requires the State Geologist to classify mineral areas in the state and the State Mining and Geology Board to designate mineral deposits of regional or statewide significance.

The State Geologist classifies land within study areas according to five zones:

- MRZ-1 - Areas where adequate information indicates no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2 - Areas where adequate information indicates that significant deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3 - Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4 - Areas where available information is inadequate for assignment to any other MRZ zone.
- SZ - Areas containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance.

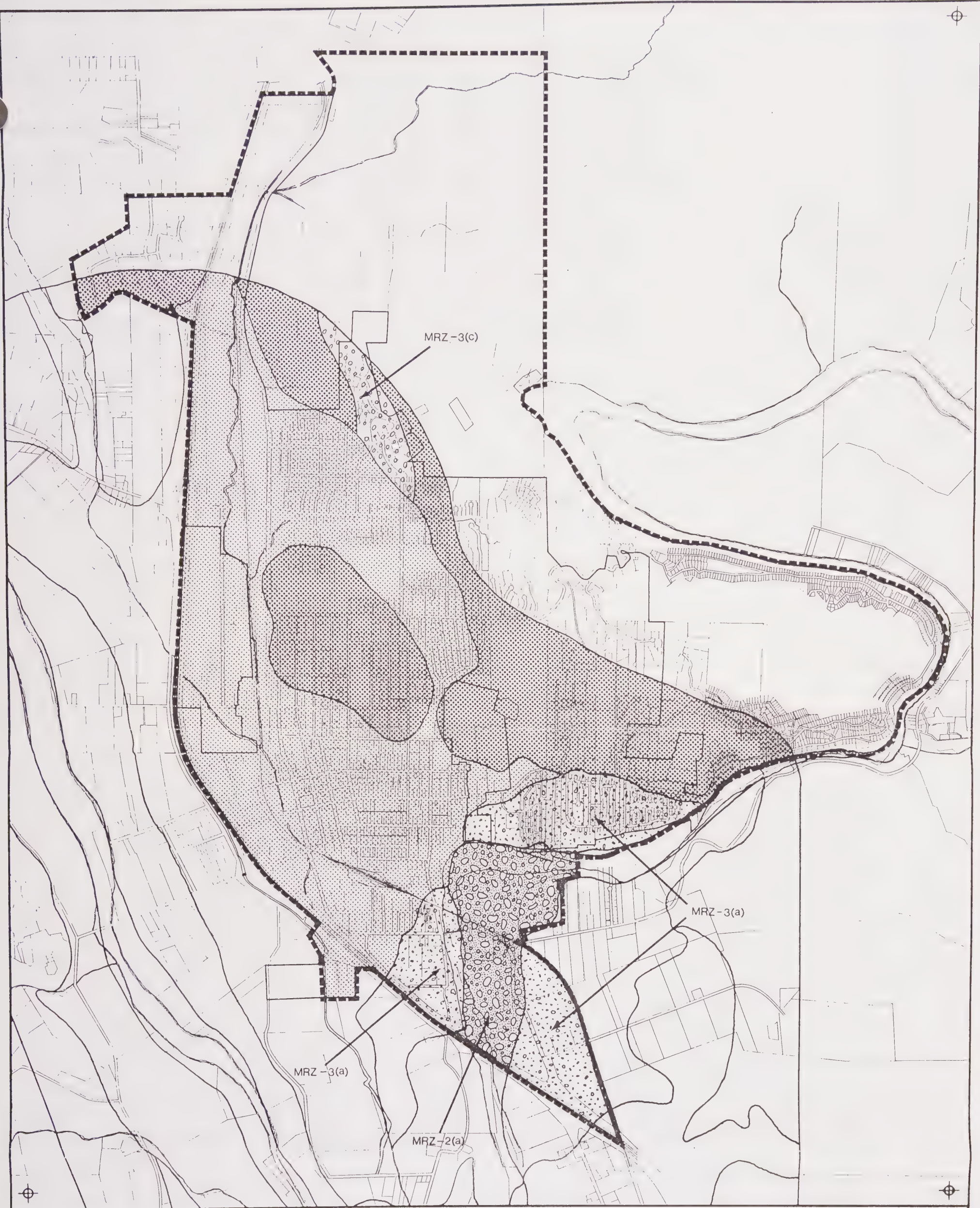
The purpose of the classification and designation process is to ensure that mineral deposits are available when needed. Counties and cities containing areas classified as Mineral Resource Zones 2 or 3 (MRZ-2 or MRZ-3), Scientific Zone (SZ), or designated as mineral deposits of regional or statewide significance must amend their general plans to include the state information on the mineral deposits and policies for managing them.

In 1983, the State Geologist published mineral land classifications for the San Francisco Bay Area. The report included a number of MRZ-2 and MRZ-3 classifications within the Healdsburg area. These are shown in Figure VIII-5.

The following discussion of the MRZ-2 and MRZ-3 zones is excerpted from the State Geologist's report for the Bay Area.

MRZ-2(a) (See Figure VIII-5)

Resource Sector B includes the Middle Reach of the Russian River (Sectors B-1 and B-2) and Dry Creek (Sectors B-3 and B-4). Sectors B-1 and B-2 encompass the sand and gravel deposits along the Middle Reach of the Russian River, from approximately 1000 feet south of the Wohler Road bridge to where the river narrows, approximately a mile east of Healdsburg. Available water-well logs indicate that the sand and gravel extend to depths of up to 80 feet beneath the following soil units: Riverwash; Alluvial land, sandy; Cortina very gravelly loam; and Cortina very gravelly sandy loam. Sectors B-3 and B-4 are located in the drainage of lower Dry Creek from a point about 2000 feet west of the confluence of Dry Creek and the Russian River to near School House Creek, a distance of about 15 miles. Available well logs indicate that



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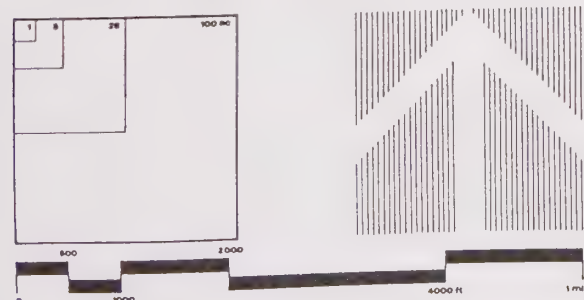


Figure VIII-5. MINERALS CLASSIFICATION

- MRZ-1 (Stone)
- MRZ-2 (Sand & Gravel)
- MRZ-3 (Sand & Gravel)
- MRZ-3 (Stone)
- MRZ-4 (Stone)

Source: California Division of Mines & Geology, 1983

sand and gravel extend to a depth of about 35 feet beneath the four soil units mentioned above. Several aggregate operations are active in Sector B.

MRZ-3(a) (See Figure VIII-5)

Quaternary alluvium - Russian River terraces and floodplains, and alluvial fans. Examination of known sand and gravel deposits along the Russian River indicate that the commercial-grade sand and gravel extends outward from the river channel into the area overlain by soil of the Yolo series. Water well logs when available, tend to support this observation. The area classified MRZ-3 is essentially that shown on the soil maps as Yolo series soil. Deposits of commercial-grade sand and gravel may occur in the area classified MRZ-3, but insufficient drill hole data is available to justify an MRZ-2 classification of the area. However, water well log data though meager, does tend to indicate a possibility of the presence of sand and gravel deposits in the MRZ-1 area west of the boundary between the MRZ-3 and MRZ-1 area along Forman Lane. The water logs indicate the possible presence of deposits of sand and gravel, but location data for the wells requires a field verification of each well location. This was not done during the present study.

MRZ-3(c) (See Figure VIII-5)

Sonoma Volcanics andesitic to basaltic lava flows. Deposits of volcanic rock of the Sonoma Volcanics are being quarried at several sites within the north Bay Area. One or more of the areas classified MRZ-3 may contain material suitable for aggregate. However, a detailed site examination with sampling and laboratory testing of the rock would be necessary to determine if the material is suitable for aggregate.

In January 1987, the California Division of Mines and Geology under the direction of the State Mining and Geology Report published its designations of regionally significant construction aggregate resource areas within the Healdsburg area. The designation reduced the boundaries of Sector B-1 to delete the areas outside the active channel of the Russian River or controlled by aggregate producers. As a consequence, only the lands controlled by Syar Industries, Inc. along the Russian River and within the active channel of the Russian River north of Healdsburg Avenue near Bailache Road are designated as areas containing regionally significant construction aggregate resources. Nonetheless, the deleted areas in Sector B-1 remain classified as MRZ-2 for construction aggregate (See Figure VIII-6)

AIR RESOURCES

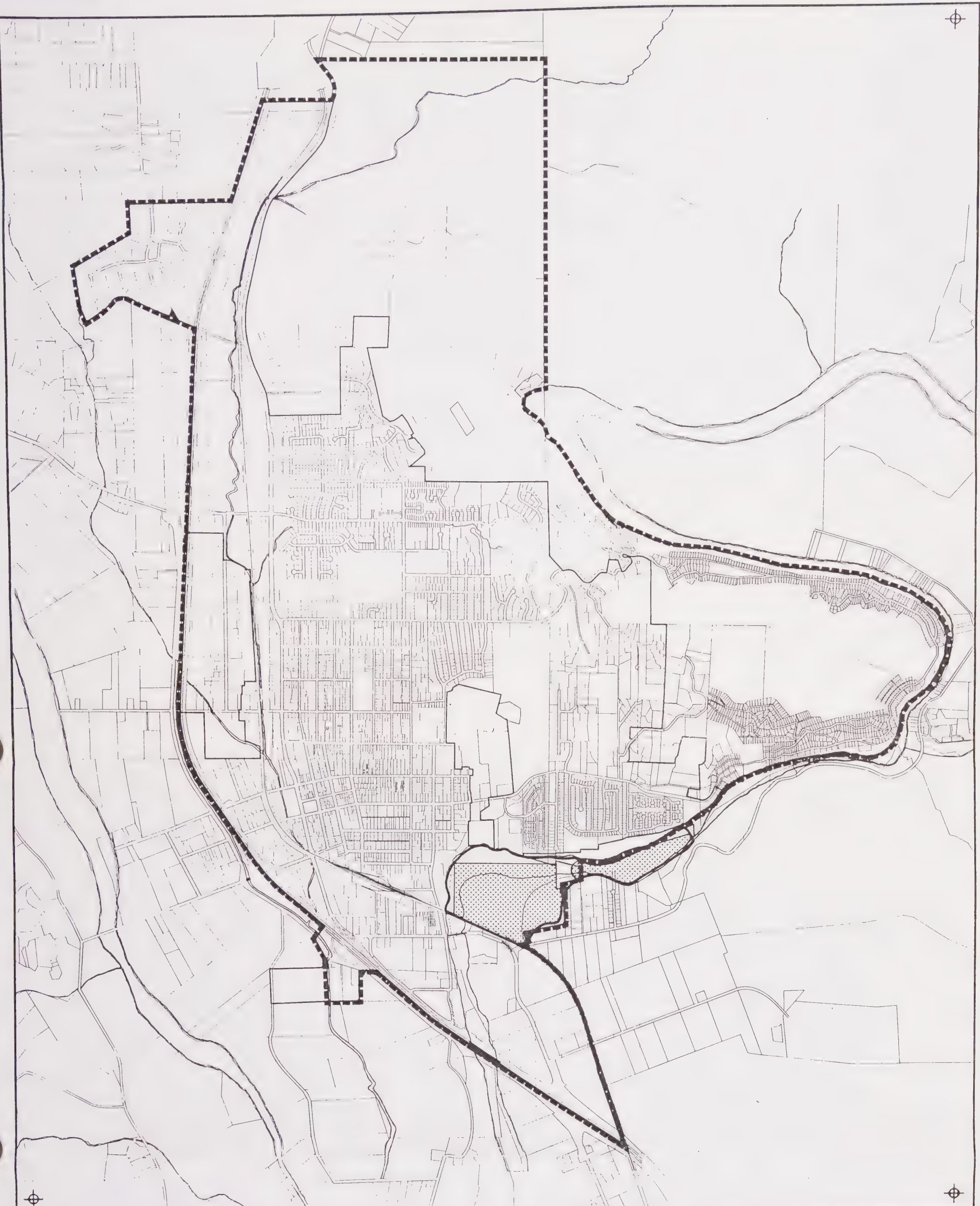
Dry season winds are generally from the northwest and are caused by the position of the Pacific High and the inland low pressure areas. Wind speeds are normally less than 10 miles per hour. The wet season, November through April, brings lower temperatures, increased cloud cover, and a change in primary wind direction. The more southerly position of the Pacific High results in southwesterly winds which occasionally exceed 30 miles per hour.

Healdsburg is not significantly affected by fog originating along the coast. The area is protected from fog intrusion due to its distance from the coast and the location of surrounding hills. During an average year, 70 percent of the days have clear skies. Summer fogs generally burn off by 10:00 a.m., and for the period April 15 - September 15, 98 percent of the days are classified as having clear skies. In late November and late February this figure drops to 50 percent, and by mid-January the figure drops to 30-40 percent. During the winter relative humidities range from an average of 90 percent at night to 60 percent in the day. During the summer, night-time humidities average near 70 percent, lowering to 30 percent during the day.

The Northern Sonoma County Air Pollution Control District (NSCAPCD) is the local agency responsible for monitoring air quality conditions in the greater Healdsburg area, and for carrying out enforcement activities to maintain air quality in accordance with applicable State and Federal standards. Unlike the urban areas to the south, where carbon monoxide and/or oxidant standards have been occasionally been exceeded because of large concentrations of "mobile" sources (motor vehicles, construction, and agricultural equipment powered by internal combustion engines), the only identified air quality problems in the Healdsburg area are related to particulates generated by agricultural (burning, disking, etc.) and industrial (gravel extraction, lumber milling) activities and wood burning stoves and fireplaces. Agricultural burning reaches peaks in June (prune tree prunings) and September (grape vine prunings). "No-burn" days are declared by the District when pollutant concentrations have attained a level where burning must be prohibited to prevent further diminution of ambient air quality to levels that might have adverse health effects on sensitive human receptors. Dust generation from wood product processing and gravel extraction operations occurs throughout the year.

Based on studies conducted by the NSCAPCD, wood-burning fireplaces and stoves have been identified as a significant source of air pollution in the Healdsburg area. These studies show that the pattern of wood burning in residential fireplaces and stoves is positively correlated on a seasonal basis with increased levels of small particulates (PM-10) and is positively correlated on a daily basis with increased levels of the coefficient of haze (COH). Monitoring data indicate that the state ambient air quality standard of 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for a 24-hour period was exceeded several times during the fall and winter months of 1984, 1985 and 1986.

Emissions from wood-burning fireplaces and stoves, according to the Air Pollution Control District, can be greatly reduced by the use of clean-burning fireplace inserts and stoves.



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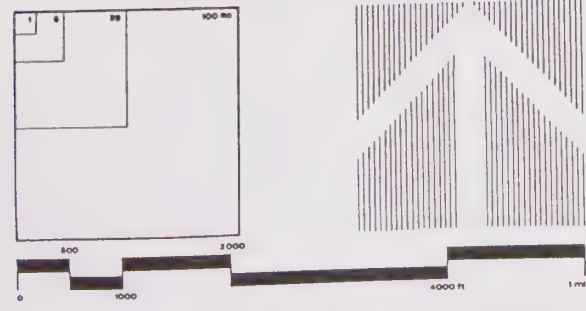


Figure VIII-6. MINERALS DESIGNATION

- SECTOR BOUNDARY
- PROPERTIES OWNED OR CONTROLLED BY AGGREGATE PRODUCERS

Source: State Mining & Geology Board, January 1987

FINDINGS

- The principal water resource issue relevant to the General Plan is the potential for water quality impacts resulting from septic tank failures in the Fitch Mountain area. This condition could be exacerbated by the effect of very low summer flows in the Russian River and could result in substantial impacts on water contact recreation, fish and wildlife (and their aquatic habitat), riparian vegetation, and the City's Fitch Mountain well field at the old corporation yard.

While the quantity and quality of the groundwater resource is not a real constraint on development, the potential for pollution of the aquifer from wastewater discharges should be systematically monitored. This is particularly important with respect to new industrial development, given the recent Fairchild groundwater pollution problem.

Continued restoration and enhancement of Foss Creek is an important consideration in the General Plan revision. As discussed elsewhere in this report, Foss Creek has great recreation and scenic potential, is an important urban design feature, and is an important fish and wildlife habitat.

Scenic, recreational, ecological, domestic water supply, and fire protection impacts could result from low-flow conditions in the Russian River. While the establishment of minimum flow levels is beyond the control of the City of Healdsburg, the City should continue to lobby the Water Resources Control Board to set minimum flow levels that protect its domestic water supply and promote the scenic, recreational, and ecological values of the Russian River.

- The loss of agricultural land and prime agricultural soils through development is the most important soils and agricultural resource issue. However, since there are not extensive or significant agricultural lands within the Urban Service Area, General Plan policies and programs designed to protect agricultural resources will apply to a very limited number of parcels and circumstances.
- Natural, cultivated, and ornamental vegetation plays a central role in defining and supporting several important resource values in the Urban Service Area.

First, the high scenic quality of Healdsburg is largely a function of the extensive vegetation cover. The natural vegetation found on Fitch Mountain and on the foothills surrounding the city is central to its high scenic quality. In addition, the large number of "heritage trees," the substantial street tree plantings, and the extensive plantings of trees and shrubs in private yards give the city an appealing, park-like appearance. Vegetation is clearly a key factor in the high visual quality of the Urban Service Area.

Second, this extensive vegetation cover is of considerable importance to outdoor recreational uses. With the exception of field sports, most forms of outdoor recreation benefit from the ambience trees provide to parks and other recreation areas.

Third, vegetation is a major determinant of fish and wildlife quantity and quality. Aquatic habitat values are sustained by the shade and bank stabilization provided by vegetation. Most mammals, amphibians and birds have habitat requirements in which vegetation plays a critical role in terms of providing food and cover.

Taken together, these three resource values serve to greatly enhance the quality of life for city residents as well as providing an important "external economy" to the tourism industry.

- There are no lands within the Urban Service Area which are subject to or qualify under the California Timberland Productivity Act, thus timber resources are not addressed in the General Plan.
- Because they are located along the Russian River, the significant sand and gravel deposits represent potential conflicts with fish and wildlife values (as related to stream channel modification) and scenic and recreation resources.

There are major conflicts between gravel extraction and viticulture in the area surrounding Healdsburg, although the possibility for this conflict occurring within the Urban Service Area appears remote.

There is also a conflict between future urban development and extraction of sand and gravel (MRZ-2 and MRZ-3) in the southern part of the Urban Service Area. Public and private investments in this area largely preclude the expansion of mining activities. The Surface Mining and Reclamation Act leaves to local government primary responsibility for striking a balance between regional minerals needs and local development needs.

- Air pollution has not yet become a serious problem in the Healdsburg area. The most significant air pollution problem is associated with residential wood burning in fireplaces and stoves. New residential development will contribute significantly to this problem unless clean-burning fireplace inserts and stoves are installed in new developments.

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- Theresa Winstrom, California Regional Water Quality Control Board, North Coast Region
- Robin Wood, Biologist

GLOSSARY

Air Pollutant Emission - Discharges into the atmosphere, usually specified in terms of weight per unit of time for a given pollutant from a given source.

Air Pollution Control District (APCD) - A single- or multi-county agency with legislative authority to adopt and enforce all rules and regulations necessary to control nonvehicular sources of air pollutants in its area.

Air Quality Standard - A health-based standard for air pollution established by the federal government and the state.

Ambient Air Quality - The quality of the air at a particular time and place.

cfs - cubic feet per second.

Climatology - The study of long-term, average weather, including winds, temperature, cloud cover, rainfall, and humidity.

CO - Carbon Monoxide.

Concentration - A measure of the average density of pollutants, usually specified in terms of pollutant mass per unit volume of air (typically in micrograms per cubic meter) or in terms of relative volume of pollutant per unit volume of air (typically in parts per million).

Erosion - The process by which soil and rock are detached and moved by running water, wind, ice, and gravity.

Habitat - The natural environment of a plant or animal.

HC - Hydrocarbons.

Land Inventory and Monitoring (U.S. Soil Conservation Service) - A rating system for designating prime farmland that uses nine criteria. The LIM system also defines "unique farmland," "additional farmland of statewide importance," and "additional farmland of local importance."

Land Capability Classification (U.S. Soil Conservation Service) - A grouping of soils into classes (I-VIII), subclasses, and units according to their suitability for agricultural use, based on soil characteristics and climatic conditions.

Minerals - Any naturally occurring chemical element or compound, or group of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum (Title 14, California Administrative Code Section 3502).

Non-Renewable Natural Resources - Inanimate resources that do not increase significantly with time and whose use diminishes the total stock (e.g., minerals and fossil fuels).

NO_x - Nitrogen Oxides.

Prime Agricultural Land - "(1) All land which qualifies for rating as Class I or Class II in the Soil Conservation Service land use capability classifications; (2) Land which qualifies for rating 80 through 100 in the Storie Index Rating; (3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture; (4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a non-bearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than \$200 per acre; and, (5) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than \$200 per acre for three of the previous five years" (Government Code Section 51201(c)).

Reclamation - "The combined process of land treatment that minimizes water degradation, air pollution, damage to aquatic or wildlife habitat, flooding, erosion, and other adverse effects from surface mining operations including adverse surface effects incidental to underground mines, so that mined lands are reclaimed to a usable condition which is readily adaptable for alternate land uses and create no danger to public health or safety. The process may extend to affected lands surrounding mined lands, and may require backfilling, grading, resoiling, revegetation, soil compaction, stabilization, and other measure" (Public Resources Code Section 2733).

Renewable Natural Resources - Resources that can be replaced by natural ecological cycles or sound management practices (e.g., forests and plants).

Riparian Habitat - The land and plants bordering a watercourse or lake.

Timber - "Trees of any species maintained for eventual harvest for forest products purposes, whether planted or natural growth, standing or down, on privately or publicly owned land, including Christmas trees, but ... not ... nursery stock" (Government Code Section 51100(e)).

VHC - Volatile Hydrocarbons.

Watershed - The total area above a given point on a watercourse that contributes water to its flow; the entire region drained by a waterway or which drains into a lake or reservoir.

CHAPTER IX

HEALTH AND SAFETY

INTRODUCTION

A range of environmental hazards must be taken into account in planning for city development. Some of the hazards are natural, such as seismic shaking; some are purely man-made, such as noise; and others are natural hazards that are exacerbated by man, such as development in a floodplain. Many of the hazards are simply to be avoided in the development process by locational decisions, while other hazards can be tolerated or minimized by building mitigation measures into the planning and land use regulation process and building standards.

This chapter inventories and assesses the major hazards confronting Healdsburg, including geologic and seismic hazards, wildland and urban fires, flooding, inundation due to dam failure, and noise. This chapter also reviews the City's current emergency response organization and plan to be activated in the event of a disaster.

GEOLOGIC AND SEISMIC HAZARDS

This section on geologic and seismic hazards is based on a review of available geologic, engineering, geoplanning, and seismic reports and documents concerning the Planning Area and based on discussions with staff of the Healdsburg Public Works Department, the Sonoma County Planning Department, the City of San Jose, the County of Santa Clara, the California Division of Lands and Geology and others. Reconnaissance-level geologic maps were also prepared by using stereo-paired aerial photographs and by limited field observations. This geologic data was used to refine and update the geologic and seismic risk maps and geologic information contained in documents previously prepared for the City.

It should be recognized that there are limits on the use of information in this section. Figures IX-1, IX-2, and IX-3 should be used only as general guides to identifying the possible presence of geologic-related constraints; they should not be used as the sole basis for approving or denying proposed development. The maps and the text, which provide a preliminary indication of the degree of potential hazard or risk that may exist within the various geologic and seismic zones, can be used as the foundation for more detailed geotechnical investigations that will be required for specific projects.

Geologic Environment of Healdsburg

This subsection contains a description of the physiography, geologic history, geologic formations and faults in the Urban Service Area. Figure IX-1 shows the general geology of the Urban Service Area.

Physiography

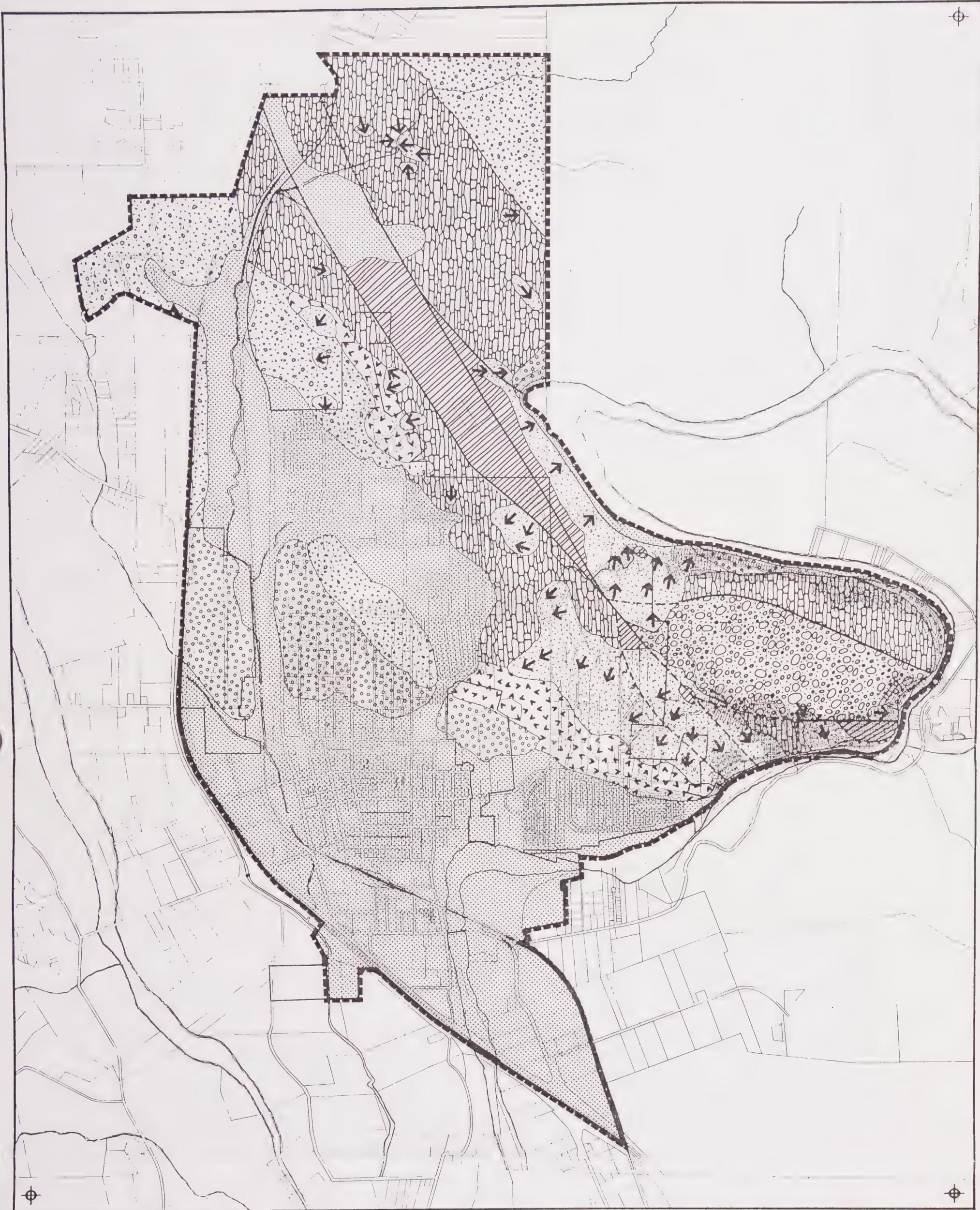
Healdsburg lies along the east side of a wide, alluviated, northwest trending valley. The city is bordered by hilly terrain on the north, east, and northwest. Within the Urban Service Area, the generally flat topography of the valley floor merges at a gradual incline with the low-lying hills that trend northwest-southeast. The elevation of these hills is seldom greater than 500 feet, and the majority of the Urban Service Area is less than 400 feet in elevation. The most prominent topographic feature is Fitch Mountain. This mountain has a maximum elevation of just under 1,000 feet and is flanked by steep, heavily vegetated slopes which drop down abruptly to the Russian River. The Russian River is the primary drainage course within the Healdsburg area and the principal drainage course within Sonoma County. The river drains in sinuous fashion from north to south and forms the eastern boundary of the Urban Service Area. To the west of the Planning Area, Dry Creek drains southerly to its confluence with the Russian River. Foss Creek, a tributary of Dry Creek, flows south through Healdsburg. Smaller ephemeral and perennial streams are tributary to Foss Creek. Most of these drain westerly from the hilly terrain in the eastern part of the city.

The Urban Service Area comprises a valley area on the west-southwest and a hilly area on the east-northeast. The valley area occupies about 60 percent of the Urban Service Area and is punctuated by occasional low northwest-trending hills. The northwest trending hilly or upland area on the east-northeast is generally uniform in maximum elevation, except for its most prominent topographic feature, Fitch Mountain, which is located on the extreme southeast. These two areas, or physiographic units, have important geologic implications for planning. In general, the hilly unit poses more risk, requires more geologic study, and will be more costly to develop. While the valley unit is not free of geologic risk, the degree of risk is considerably lower.

Geologic History

The geologic history of the Healdsburg area is complicated. The rock units present in the Planning Area were formed during three widely-spaced frames of geologic time. The oldest rocks were formed during the Jurassic and Cretaceous periods (65 to 100 million years ago) from the erosion of ancestral highlands. This erosion produced large volumes of sand, gravel, silt and clay that were deposited in an adjacent subsiding oceanic basin. Over long periods of time, these materials were consolidated and lithified into bedded deposits (KFgv), which were later folded, faulted, and uplifted. (See Figure IX-1 for location of geologic units.) At about the same time, masses of serpentinite (SC) were intruded into these rocks along northwest trend zones of structural weakness.

In the Healdsburg area, there are no observable bedrock units representing the time frame between seven and 65 million years ago. If such rock units were formed, they were eroded prior to deposition of rock units which are younger than seven million years in age. During this time frame of approximately 58 million years, however, there was moderate crustal compression which caused gentle folding of the rock units present along with some local subsidents. Regional faulting also occurred.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

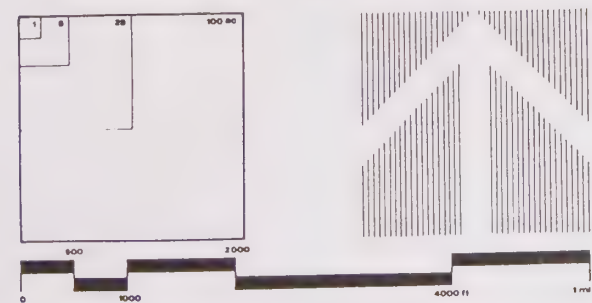


Figure IX-1. GEOLOGY & FAULTS

- Landslide Areas
- Alluvium
- Stream Terrace Deposits
- Sandstone, Siltstone, Semi-Consolidated Gravels, Miner Volcanic Tuff & Associated Colluvium (Glen Ellen Formation)
- Basalt & Associated Colluvium (Sonoma Volcanics)
- Conglomerate & Associated Colluvium (Great Valley Sequence)
- Sandstone, Shale, & Associated Colluvium (Great Valley Sequence)

Serpentine & Associated Colluvium
GEOLOGIC SYMBOLS

- Geologic Contact; Solid where well located, dashed where approximately located
- Healdsburg & Associated Branch Faults, Solid where relatively well located, dashed where approximately located, query indicates uncertainty
- Direction of Landslide Area Movements

Source: Geologic Units Based on Geology for Planning in Sonoma County Special Report, California Division of Mines & Geology; 1980 Healdsburg Fault Locations from Alquist-Priolo Special Studies Zones from State of California Official Map of the Healdsburg Quadrangle, Jan. 1, 1976

Slightly less than seven million years ago, volcanic activity, resulting from crustal disturbance, produced ash and flow deposits of mostly basalt rock material (Tsa). This volcanic activity produced the Sonoma Mountains whose volcanic deposits covered much of the existing terrain south of the Healdsburg Planning Area, as well as small portions within the Healdsburg Planning Area. At about the same time, ancestral streams and rivers were eroding preexisting formations and depositing the resultant clays, silts, sands and gravels on adjacent lowlands. These deposits were later to be semi-consolidated into materials referred to as the Glen Ellen Formation (QTge). Remnant portions of this formation are present within the Healdsburg area.

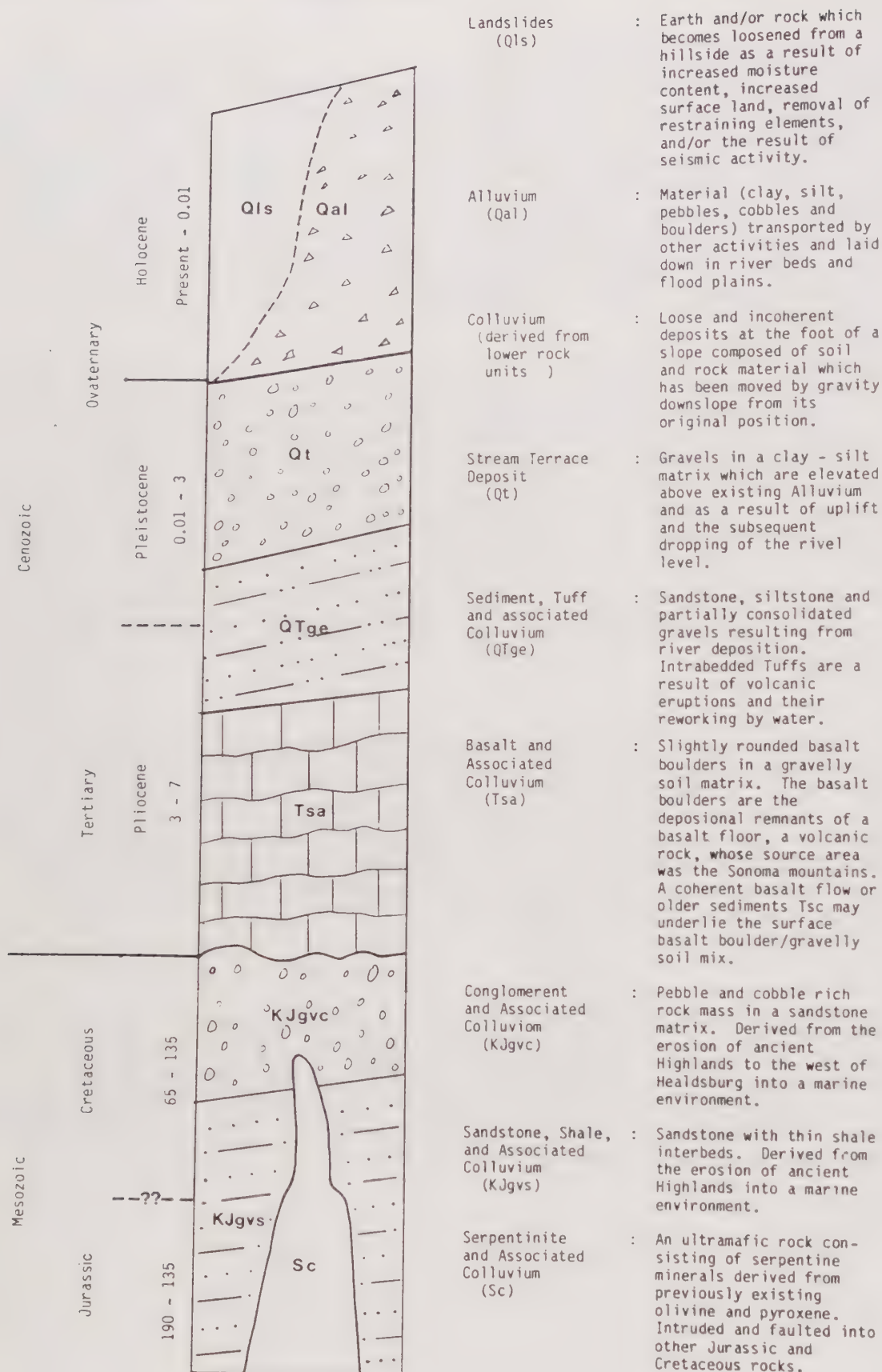
Regional uplift of the area began approximately three million years ago and continues sporadically to the present. Many faults, whose activity had ceased earlier, were likely reactivated. Two periods of subsidence occurred during the regional uplift. During the first, stream gravels were deposited, and, as uplift continued, formed terraces (Qt) along and above existing river channels. The second period of subsidence allowed the valleys to be filled with alluvium (Qal). More recent uplift has occurred or is continuing, and the Russian River is now incising a channel through these earlier alluvial deposits. During present geologic times, residual and colluvial soils have developed, and landslides have occurred locally throughout the area.

Geologic Units

Eight geologic units have been delineated within the Urban Service Area (see Figure IX-1). Their general composition and relative ages are shown on Chart IX-1, Stratigraphic Column. As Figure IX-1 shows, the geologically older deposits occupy the hilly area to the east, and the younger deposits are mostly located to the west in the adjacent valley and lowland areas. Additional information on the nature and composition of geologic unit is presented in Tables IX-1A through IX-1H.

Faulting

The northwest trending Healdsburg Fault traverses the eastern part of the Urban Service Area. This fault has been mapped as a zone of variable width which is characterized by crushed and sheared rock and serpentinite outcrops. Seepage areas and landslides are sporadically aligned along the fault zone. Subparallel branch and secondary faults are associated with the zone. Some of these are shown in Figure IX-1.



* Millions of Years Before the Present.

¹ Geologic Units are after Huffman, M. E. & Armstrong, C. F. 1980 "Geology For Planning In Sonoma County." California Division of Mines & Geology, Special Report 120.

GENERAL PHYSICAL AND ENGINEERING PROPERTIES
OF GEOLOGIC UNITS

TABLE IX-1A

Geologic Unit: Q1s

Seismic Stability:

1. Ground Shaking: low-moderate; greatest in deep deposits that are well saturated.
2. Ground Failure:
 - A. Liquefaction: moderate-high.
 - B. Settlement: low-moderate; unconsolidated zones with poor slide material packing may collapse.
 - C. Landslides: low; slides can be reactivated especially when saturated.

Slope Stability:
(not seismic induced)
Low.

Erodability:

High; composed of unconsolidated soil.

Shrink-Swell Potential:¹

Moderate-high; localized layers of clay may expand or shrink depending upon the composition, thickness, and degree of penetration by water.

Permeability:

High; depends upon the degree of reconsolidation and clay content.

Rippability:

High.

Soil Development:¹

Moderate to well developed; original soil cover is usually retained. Forms soils of clay loam which are part of the Dibble Series.

¹ For engineering properties of soils, refer to United States Department of Agriculture 1972. Soil Survey, Sonoma County, California.

TABLE IX-1B

Geologic Unit: Qal

Seismic Stability:

1. Ground Shaking:

Low-moderate; hazard increasing with the depth of alluvium. For structures over three stories high, the hazard is high in alluvium thicknesses greater than fifty feet. Estimated alluvial depths in the Healdsburg area are from 0-150 feet.

2. Ground Failure:

A. Liquefaction: Low-moderate; susceptibility is greatest in unconsolidated, water saturated clay free, sandy deposits.

B. Settlement: low-moderate; highest in areas of granular deposits of low density.

C. Landslides: moderate; lurching could occur along stream banks resulting in small slides.

Slope Stability:
(not seismic induced)

Moderate; erosion along stream banks could result in small slides.

Erodability:

Moderate-high; clays, silts and sands are easily eroded depending upon the degree of consolidation.

Shrink-Swell Potential:

Moderate-high; localized layers of clay may expand or shrink depending upon the composition, thickness, and degree of penetration by water.

Permeability:

Moderate-high; highest in unconsolidated areas lacking clay.

Rippability:

High.

Soil Development:

Moderate to good on floodplains, poor on recent deposits; forms soils of the Yolo-Pleasanton Series.

TABLE IX-1C

<u>Geologic Unit:</u> Qt	
<u>Seismic Stability:</u>	
1. <u>Ground Shaking:</u>	Moderate-high; depends upon the degree of consolidation and water saturation thickness.
2. <u>Ground Failure:</u>	A. <u>Liquefaction:</u> Moderate-high; depends upon consolidation and water content. B. <u>Settlement:</u> Low-moderate; unconsolidated zones with poor material packing may collapse. C. <u>Landslides:</u> Low.
<u>Slope Stability:</u> (not seismic induced)	
Low.	
<u>Erodability:</u>	
High; mostly soil.	
<u>Shrink-Swell Potential:</u>	
Moderate-high; localized clay layers of clay may expand or shrink depending upon composition, thickness, and degree of penetration by water.	
<u>Permeability:</u>	
Moderate; depends upon the clay silt matrix.	
<u>Rippability:</u>	
High.	
<u>Soil Development:</u>	
Low-moderate development of gravelly soils of the Pleasanton Series.	

TABLE IX-1D

<u>Geologic Unit:</u> QTge	
<u>Seismic Stability:</u>	
1. <u>Ground Shaking:</u>	Moderate-high; depends upon the degree of consolidation and the lithology.
2. <u>Ground Failure:</u>	A. <u>Liquefaction:</u> High. B. <u>Settlement:</u> Moderate-high; depends upon the slope steepness and the degree of gravel consolidation. C. <u>Landslides:</u> Moderate-high; depends upon the slope steepness and the degree of gravel consolidation.
<u>Slope Stability:</u> (not seismic induced)	
Moderate-high; gravel deposits may slide out if exposed.	
<u>Erodability:</u>	
Moderate-high; depends upon the degree of consolidation of the gravels and the amount of exposure.	
<u>Shrink-Swell Potential:</u>	
Moderate-low; expansive clays may be found within the matrix in minor quantities.	
<u>Permeability:</u>	
Low-high; depends upon the clay content and the degree of consolidation.	
<u>Rippability:</u>	
High-moderate; depends upon the consolidation of the material.	
<u>Soil Development:</u>	
Moderate-good; forms a gravelly clay loam of the Haire Series.	

TABLE IX-1F

<u>Geologic Unit:</u> KJgvc	
<u>Seismic Stability:</u>	
1. <u>Ground Shaking:</u>	High in rock, moderate in thick colluvium.
2. <u>Ground Failure:</u>	A. Liquefaction: High.
	B. Settlement: High.
	C. Landslides: Moderate-high; rock falls could occur in earthquakes of high magnitude. Moderate-low in colluvium which is at a high slope angle and is of a sufficient thickness, could slide.
<u>Slope Stability:</u> (not seismic induced)	
	High on rock, as it is massive and consistently hard. Moderate-low on colluvium, depending upon the thickness and slope angle.
<u>Erodability:</u>	
	Low on rock, moderate-high on colluvium.
<u>Shrink-Swell Potential:</u>	
	Low.
<u>Permeability:</u>	
	Rock is impermeable, colluvium is moderate to high.
<u>Rippability:</u>	
	Moderate-hard; depends upon shearing and fractures.
<u>Soil Development:</u>	
	Low to moderate; forms gravelly clays of the Henneke Series.

TABLE IX-1E

<u>Geologic Unit:</u> Tsa	
<u>Seismic Stability:</u>	
1. <u>Ground Shaking:</u>	Moderate-high; the surface basalt boulder/gravel soil matrix might shake depending upon consolidation and the nature of the underlying layer.
2. <u>Ground Failure:</u>	A. Liquefaction: High.
	B. Settlement: Moderate-high; depends upon the tightness of the basalt boulder/gravel soil matrix material.
	C. Landslides: Moderate-high; depends upon the slope steepness and the degree of gravel consolidation.
<u>Slope Stability:</u> (not seismic induced)	
	Moderate-high; depends upon the slope steepness and the degree of consolidation.
<u>Erodability:</u>	
	Moderate-high; gravel-sand matrix, will erode if not consolidated.
<u>Shrink-Swell Potential:</u>	
	Moderate-low; expansive clays may be found within the matrix in minor quantities.
<u>Permeability:</u>	
	Low-high; depends upon the clay content and the degree of consolidation.
<u>Rippability:</u>	
	Moderate-hard; hard if coherent basalt is encountered at depth.
<u>Soil Development:</u>	
	Low-moderate; well developed cobble-rich soils of the Dibble Series.

TABLE IX-1G

Geologic Unit: KJgvsSeismic Stability:

1. Ground Shaking: High in rock, moderate in thick colluvium.
2. Ground Failure: A. Liquefaction: High.
B. Settlement: High.
C. Landslides: High in rock, rock falls could occur in earthquakes of high magnitude. Moderate-low in colluvium, which is at a high slope angle and is of a sufficient thickness, could slide.

Slope Stability:(not seismic induced)

Moderate on rock depending upon weathering and fracture spacing.
Moderate-low on colluvium, depending on the thickness and slope angle.

Erodability:

Low on rock, moderate-high on colluvium.

Shrink-Swell Potential:

Low.

Permeability:

Moderate permeability on rock; colluvium is moderate-high.

Rippability:

Moderate-hard, depending upon weathering and fracture spacing.

Soil Development:

Moderate well-developed loams of the Los Gatos Series.

TABLE IX-1H

Geologic Unit: scSeismic Stability:

1. Ground Shaking: High in rock, moderate in thick colluvium.
2. Ground Failure: A. Liquefaction: High.
B. Settlement: High.
C. Landslides: Moderate-high; depends upon the shearing and clay content of the rock. Moderate in colluvium.

Slope Stability:(not seismic induced)

Low-moderate; sheared nature facilitates sliding.

Erodability:

Moderate to high. Highest in sheared clay zones.

Shrink-Swell Potential:

Moderate-high; expansive clays may be present.

Permeability:

Low-high; depends upon shearing, fracturing and clay content.

Rippability:

High-moderate; depends upon degrees of shearing and fractures.

Soil Development:

Low to moderate; forms gravelly clays and loams of the Henneke Series.

Geologic and Seismic Hazards

The geologic hazard which poses the greatest risk within the Urban Service Area is slope instability, primarily in the form of landsliding. This includes sliding on natural slopes and sliding induced or aggravated by the works of man, such as inappropriate cut and fill slope construction and modification to surface and groundwater flows. Shallower, slower soil creep movement can also be damaging.

The risk of slope instability is greatest in the upland areas of Fitch Mountain. An area of instability on the northwest of Fitch Mountain extends as a narrow band between the Russian River and adjacent ridge tops as far as Digger Bend. Another area on the west--and southwest--facing slopes of Fitch Mountain similarly trends northwest but is wider and somewhat shorter. This latter area presents the greatest potential for damaging landslides and soil creep movement due to residential development. Landsliding is also present in the upland areas of the northern part of the Urban Service Area. Landslides and landslide areas are shown in Figure IX-1. Other unmapped areas of potential instability undoubtedly exist throughout the Urban Service Area. Seismic hazards, and their secondary effects, also pose a significant risk to the city. The risk of surface rupture along the Healdsburg Fault is now judged to be low, as the California Division of Mines and Geology no longer includes this fault within an Alquist-Priolo Special Studies Zone.

Geologic Hazards

Slope Stability

Unstable and potentially unstable slopes are identified by a variety of methods and observable conditions, including 1) the presence on hillsides of bowl-shaped or step-like topography, 2) the presence of broken and sheared bedrock and/or soil deposits, 3) the presence of near surface saturated conditions as evidenced by springs or seepage areas, 4) slopes generally greater than 15 percent, and 5) broken ground and/or tilted vegetation in the case of active or recently active slides.

These features and conditions were used to outline the individual landslides and landslide areas shown in Figure IX-1.

The largest and probably most significant of the areas, as previously described, is located west and southwest of Fitch Mountain. The area appears to be composed of a series of individual landslides and areas of soil creep which are locally coalesced or superimposed, rather than one large, deep landslide block. This also appears to be the case for the landslide and soil creep areas located northwest of Fitch Mountain. In both cases, there are probably individual sites which are sufficiently stable for development. The best of these sites are to be found along the wider portion of ridgetops with flatter terrain. Side slopes, particularly steeper ones, present a significantly higher risk of slope instability. Residential development is taking place in some of the areas identified as underlain by landslide and soil creep, particularly in the area west of Fitch Mountain. Figure IX-2 shows three general slope stability zones based in part upon existing maps:

- Zone #1. Lowest potential for slope instability. The majority of areas within this zone are relatively flat and located primarily in the west and southwest portions of the Planning Area.
- Zone #2. Intermediate potential for slope instability. Areas within this zone show some localized landslides but do not show observable signs of gross instability. They are also located on gentle to moderate slopes, some of which are likely underlain by weaker soil and/or weaker bedrock. For this reason they should be viewed as presenting some risk of instability. Locally they may present higher risk.
- Zone #3. Highest potential for slope instability. Areas within this zone are on steeper slopes underlain by existing or probable landslides and soil creep deposits, and/or underlain by generally weak appearing materials.

Erosion

Erosion and deposition are natural geologic processes common to nearly all areas. Typically, these processes include gullying, rilling, ravelling, and bank cutting. In areas undisturbed by man the erosion processes may or may not pose a hazard. If these processes are accelerated by concentrating natural surface flows into culverts or by removal of vegetative cover, the chances that hazardous conditions will develop. The areas of greatest concern for erosion potential are the upland areas lying along the eastern portion of the Planning Area, especially those areas where development is occurring.

Seismic Hazards

Like all of the North Bay Area, Healdsburg is susceptible to seismic hazards resulting from movement along one of several known active or potentially active faults within the region.

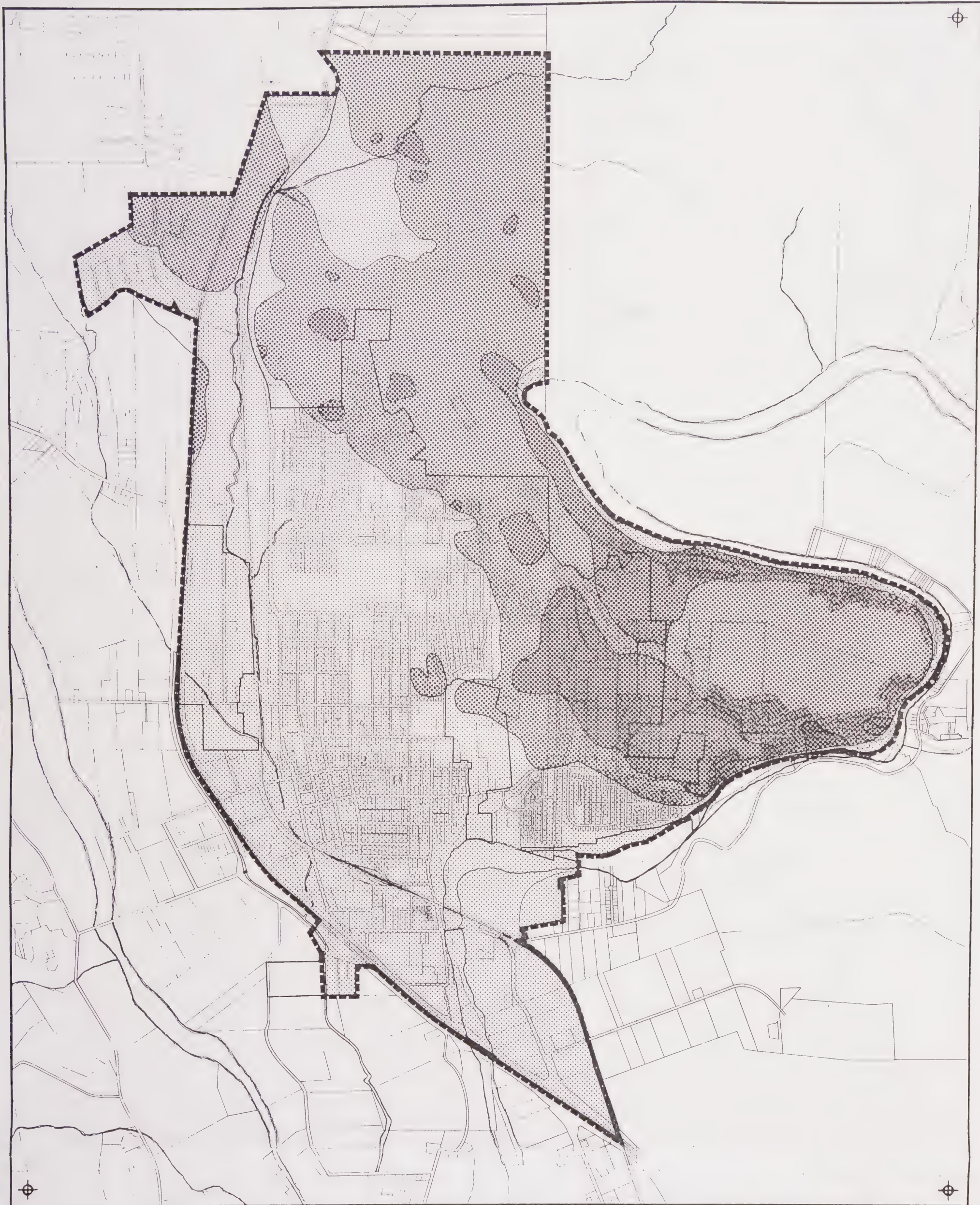
Seismic History

Since 1855, more than 140 earthquakes have been felt in the Santa Rosa-Healdsburg area; ten of these resulted in some damage. The two most destructive earthquakes were those in 1906 and 1969. The 1906 earthquake which had a Richter magnitude of 8.25, resulted in 61 dead, 12 missing and the destruction of most buildings in downtown Santa Rosa. Major damage occurred in Healdsburg, but no fatalities were reported.

The 1969 Santa Rosa earthquake, which had Richter magnitudes of 5.6 and 5.7 occurred along the southern end of the Healdsburg Fault on the north side of Santa Rosa. No deaths occurred, but 15 people were injured. Commercial and public building losses were estimated at about 2 million dollars and losses to dwellings were about 4 million dollars.

Active Faults

Within the North Bay region, there are several active and potentially active faults. The known active faults which have the greatest probability of



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

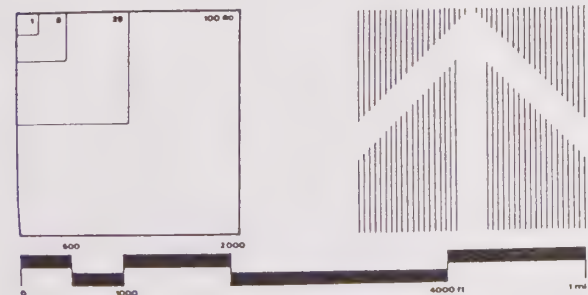





Figure IX-2. RELATIVE NATURAL SLOPE STABILITY

-  Lowest Potential for Slope Instability
-  Intermediate Potential for Slope Instability
-  Highest Potential for Slope Instability

Source: Consultant Team, 1985

producing damaging groundshaking effects within the Urban Service Area include the San Andreas, the Healdsburg-Rogers Creek, and the Maacama and associated faults. The active portions of these fault traces do not pass through the Planning Area. The San Andreas and Maacama Faults are located several miles to the west and east, respectively, while only the inactive northward extension of the Healdsburg-Rogers Creek Fault passes through the Urban Service Area. Thus, the potential for surface rupture within the Urban Service Area caused by displacement along an active fault trace is judged to be low.

The portion of the Healdsburg Fault which lies to the west and south of Fitch Mountain was previously within a Alquist-Priolo Special Studies Zone, according to official maps of the Healdsburg and Jintown Quadrangles (January 1, 1976). The Alquist-Priolo Geologic Hazards Zones Act requires the State Geologist to delineate Special Study Zones covering fault traces which are active and potentially active, and to compile and submit maps to affected cities, counties and state agencies for use in approving building sites within the Special Studies zones. Active faults are defined by the State Geologist as those exhibiting evidence of surface displacement during Holocene Time (last 11,000 years). Potentially active faults as those that have been active during Quaternary (last 3 million years). The intent of the Act is to ensure that no structure for human occupancy is constructed across the trace of an active fault.

The revised maps issued by the State on July 1, 1983, show that the Healdsburg Fault north of a point approximately 2-1/2 miles southeast of Fitch Mountain, has been removed from the Alquist-Priolo Special Studies Zone. According to the California Division of Mines and Geology, the reclassification of the northern portion of this fault is based on an evaluation of published and unpublished literature, aerial photograph interpretation, and field interpretation. Reclassification of faults from active to inactive and vice versa is not uncommon in response to new geologic information. Therefore, there is no Special Studies Zone within the Healdsburg Urban Service Area. While surface rupture along the Healdsburg Fault is considered very unlikely, it is still possible.

Groundshaking Effects

The most serious direct earthquake hazard is the damage or collapse of buildings and other structures due to groundshaking. Buildings and other structures on firm bedrock generally experience less damage than those on deep, weak, saturated soils, such as alluvium, colluvium, terrace deposits and landslide deposits. The reason that earthquake shaking is the most serious direct seismic hazard is that the shaking effects can be damaging well beyond the fault trace that generates the shaking. For example, the segment of the San Andreas Fault responsible for the destruction of San Francisco in 1906 is well offshore outside the Golden Gate. In spite of this distance from the fault trace, the intensity of damage and destruction was intense and varied dramatically over relatively short distances. Damage was greatest on land reclaimed (infilled) from the bay or on fill over old swamps or valley bottoms.

The type of construction used in buildings and other structures also influences the extent of damage and destruction. Wood-framed buildings, if properly designed and constructed, can withstand strong shaking. Buildings

of masonry, brick, or concrete blocks similarly designed and constructed are not as resistant, but are satisfactory if the mortar is good and they are reinforced with steel. Weakest of all structures are adobe and mud-walled buildings. Masonry and poorly built concrete structures can also be heavily damaged.

Tall buildings of 5 or more stories are subject to another danger which is swaying in resonance with earthquake vibrations. This is caused by the relationship between the fundamental period of ground motion of the structure and the underlying soil bedrock column. If these are sufficiently similar and the intensity of earthquake sufficiently large, the resonance or swaying may continue until the building is damaged or destroyed. Buildings and other tall structures can be designed to resist these vibrations.

Fire is often the major form of damage resulting from groundshaking effects. Ninety percent of the destruction in the San Francisco earthquake of 1906 was caused by fire. This devastation resulted largely from the great number of buildings constructed of combustible materials, damage to much of the City's firefighting facilities, and very importantly, the rupture of water mains. Most of the earthquake-induced fires start because of rupturing of power lines, damage to wood, gas, or electrical stoves, and damage to other gas or electrically powered equipment. This points out the need for greater emphasis on non-combustible material and on special construction techniques so that water mains will remain unbroken during a large earthquake. Similarly, critical facilities such as hospitals and fire stations must be sited, designed, and constructed to withstand severe earthquake groundshaking.

Ground Failure

In addition to structural damage caused by earthquake shaking, there are other ground effects caused by the shaking. These are known as ground failure effects and include liquefaction, settlement, earthquake induced landslides, lateral spreading, and lurching.

Liquefaction is a phenomenon in which water-saturated cohesionless materials, such as unconsolidated deposits of sand, silt and gravel, assume heavy liquid properties when earthquake shaking produces vibrational loading. During vibration in these deposits, individual particles tend to become more compacted thereby forcing pore water from the interstices between grains. If the water does not freely drain, large pore pressures develop. At the point these pressures equal the weight of the overlying soil materials, materials lose all their shear strength and liquefy. Structures, such as underground tanks, may float to the surface, and structures above ground may tilt or partially sink. Generally, several cycles of shaking are necessary during an earthquake to cause liquefaction, suggesting that it is usually the result of moderate or larger magnitude earthquakes. The water table must also be fairly close to the ground surface, generally 30 feet or less, for liquefaction to occur. The flat valley areas underlain by alluvium (Qal) within the Urban Service Area may be subject to liquefaction, as shown in Figure IX-3.

Settlement is the drop in elevation of ground surface due to the compaction of underlying, unconsolidated material. Seismic-induced settlement may take

place in granular deposits of low to medium density. Due to the non-uniform nature of most subsurface materials of this sort, settling amounts may vary from location to location. This condition is known as differential settlement. Differential settlement can be quite damaging and lead to cracking or shearing foundations which in turn affect the rest of the structure. Areas in the Urban Service Area that may be subject to settlement and differential settlement due to seismic shaking are located mostly in the flat areas and are underlain by alluvium (Qal), and possibly by deeper colluvial, and landslide deposits present in the upland areas (Qls).

Seismically-induced landsliding is another form of ground failure. The most likely candidates for such failures are preexisting landslides and weak, saturated colluvial soils on steeper side slopes. Materials possibly subject to these kinds of failure are mostly located in the upland areas on the east.

Lateral spreading, a form of landsliding, is the seismically-induced movement of unconsolidated materials (soils or landslide material) on gentle slopes.

Lurching is the outward movement of slope material from a near-vertical unsupported surface or face, such as a stream bank, cliff, or fill embankment.

Seismically-induced landslides, lateral spreading and lurching are variations of the same type of failure in different settings. As discussed earlier, these movements are most likely to occur in unconsolidated deposits, gentling sloping areas, and in the case of lurching, stream banks or stream terrace banks adjacent to streams and rivers.

Relative Seismic Risk Map

Based on existing seismic risk maps of the area, a study of stereo-paired aerial photographs, and limited field observation, a Relative Seismic Risk Map was prepared for the Healdsburg Urban Service Area (see Figure IX-3).

This map is general in nature and is not to be used as a sole basis for making decisions on the acceptability of a given site or proposed project; rather, it should be used as a general indication of where certain seismic hazards may exist and should be used as a basis for determining the level of detail of site-specific feasibility and design studies be required as development occurs. It should also be noted that the works of man can change the severity and location of seismic hazards. For example, the steepening of natural slopes by cut-slope construction can increase the potential for seismically induced landsliding, if the cuts are inappropriate for the geologic materials present.

The risk zones shown on Figure IX-3 are as follows:

Earthquake Induced Landslides.

- Ls Zone 1. Areas of up to moderate potential for earthquake induced landslides. Slopes are generally less than 15 percent. Where the slopes are steeper, competent rock is expected to be present at relatively shallow depths.

- Ls Zone 2. Areas of higher potential for earthquake induced landsliding. These areas include existing landslides, steeper slopes mantled with surficial material such as colluvium and crushed and sheared rock within known fault zones which traverse steep to moderately steep slopes.

Ground Failure Potential Zones.

- Zone 1. Areas of low potential for liquefaction, lurching and lateral spreading.
- Zone 2. Areas of moderate potential for liquefaction, lurching and lateral spreading.
- Zone 3. Areas of higher potential for liquefaction, lurching and lateral spreading. The potential for lurching and lateral spreading is highest adjacent to stream channels with steep to vertical banks composed of generally unconsolidated material.
- Zone 4. Areas with higher potential for groundshaking and settlement.

These zones were outlined based on limited surface and subsurface information on the physical and engineering properties of the geologic units involved.

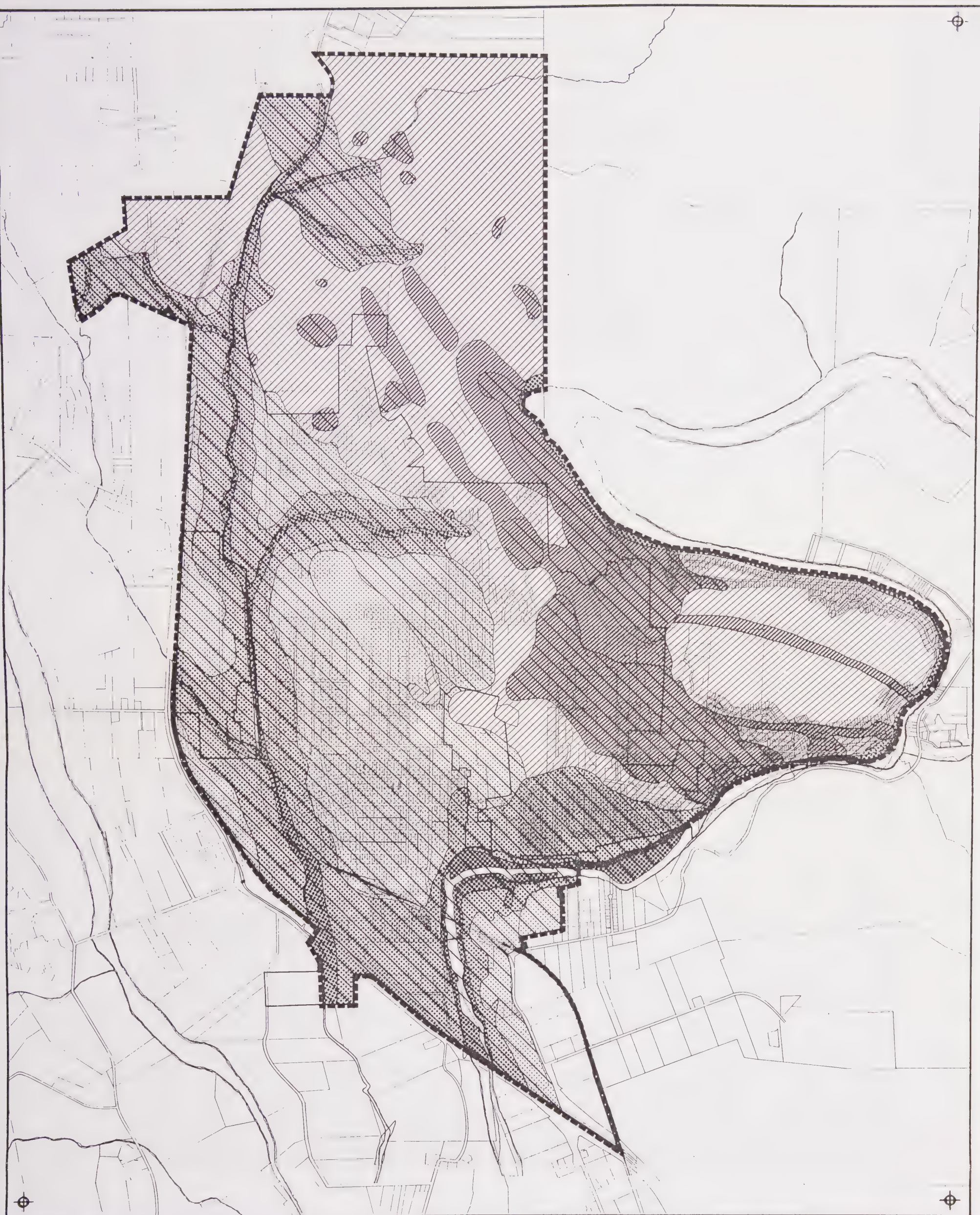
The geologic units considered most likely to experience ground failure are Qls, Qal, and Qt. Groundwater levels have an important bearing on how these generally unconsolidated geologic units will respond during groundshaking. Zone 1, which has low potential for failure, assumes that the groundwater level is 50 feet or more below the surface. Zone 2 assumes the water level is between 15 and 50 feet below the surface. Zone 3 assumes that the water level is 15 feet or less below the surface. It is also assumed that the composition of these geologic units will generally be free of clay and consist primarily of loosely compacted, granular materials. This is a conservative assumption, but is a reasonable one to make for planning purposes until more data on subsurface conditions within the Urban Service Area have been developed.

Areas within Zone 4 (high potential for groundshaking and settlement) are conservatively assumed to be saturated, loosely compacted, cohesionless deposits whose depth is greater than 50 feet.

Tables IX-1A through IX-1H, General, Physical, and Engineering Properties of Geologic Units, provides additional information on the geologic units within the Urban Service Area.

Impacts of Development on Geologic and Geologic Hazards

The severity and duration of seismic and geological hazards is affected by a number of factors, including the location of development, particularly in



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GENERAL PLAN

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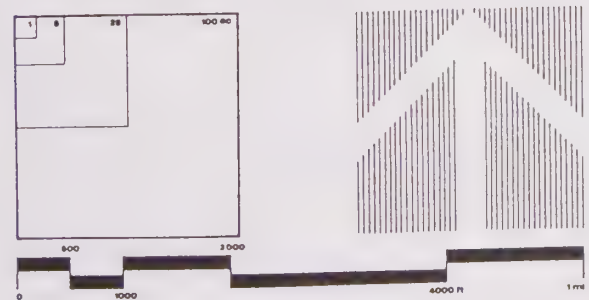


Figure IX-3. RELATIVE SEISMIC RISK

- /// Areas of up to moderate potential; slopes generally less than 15%, when slope is greater, competent rock is overlain by shallow deposits of Colluvium.
- /// Areas of higher potential; includes areas of existing landslides and steep slopes within fault zones.
- Areas of lower potential for liquefaction, lurching and lateral spreading.
- Areas of moderate potential for liquefaction, lurching and lateral spreading.
- Areas of highest potential for liquefaction, lurching and lateral spreading. Lurching and lateral spreading potential is highest adjacent to stream channels where free face conditions exist.
- Areas with higher potential for groundshaking and settlement.

Source: Consultant Team, 1985

existing or potential landslide areas. The following discussion highlights some of the significant impacts of development on these hazardous conditions. These impacts are typically much higher on hilly terrain than on flatter, valley and ridgetop areas.

1. Alteration of natural terrain. This results from cut and fill construction to develop flat areas for building sites and to construct access roads. Alteration of terrain can have significant visual impacts and indirectly can cause other geologic impacts such as instability, soil erosion, and the interruption of shallow subsurface water flows which feed springs and seepage areas.
2. Modification of natural runoff and infiltration. This results from the need to properly drain improvements such as roads and construction locations. The intercepted waters are typically collected and concentrated in culverts and drainage ditches and then carried to outfall locations where the waters are released. The concentrated flows at the outfalls may cause erosion and gully problems, as discussed below.
3. Soil erosion. This impact occurs as a result of site grading activities associated with construction. The removal of vegetation and the breaking up and loosening of soil and/or weathered rock promotes its removal by erosion during periods of seasonal runoff. In the process of removing the soil, rills and gullies may develop. The transported sediment can cause a variety of impacts including water quality degradation and the clogging of storm drains, which in turn can cause local flooding and further erosion problems.
4. Construction induced instability. Instability occurs primarily in the form of cut-and-fill slope failures. If these failures are sufficiently large, they can cause very costly structural damage as well as block off access routes.
5. Water quality degradation. This occurs as a result of eroded materials being side cast or working their way into stream courses. The effects of such actions can extend well beyond the entry point of the materials. The degradation of waters can have a variety of secondary effects such as biological, recreational, aesthetic, and stream channel impacts.

In the majority of cases, the impacts resulting from a single development are not significant. However, these impacts are typically cumulative, particularly when viewed from the perspective of a unit of landscape such as a hillside, ridgeline, or a small valley area. Some of these impacts are also long-term, such as alteration of the natural landscape and are largely irreversible. This suggests that cumulative impacts need to be considered as well as individual site impacts.

FIRE HAZARDS

Both wildland and structural fire hazards threaten life and property within the Healdsburg Urban Service Area.

Figure IX-4 depicts wildland fire hazards in the Urban Service Area as determined by the Healdsburg Fire Department, based primarily on vegetation (i.e., fuel loading) and slope. According to the figure, the northern and eastern slopes of Fitch Mountain pose the greatest fire hazard potential in the area ("Extreme Fire Hazard Area"), while much of the western slopes of Fitch Mountain and the northwest-trending ridge and hills in the northern part of the Urban Service Area are classified "High Fire Hazard Area."

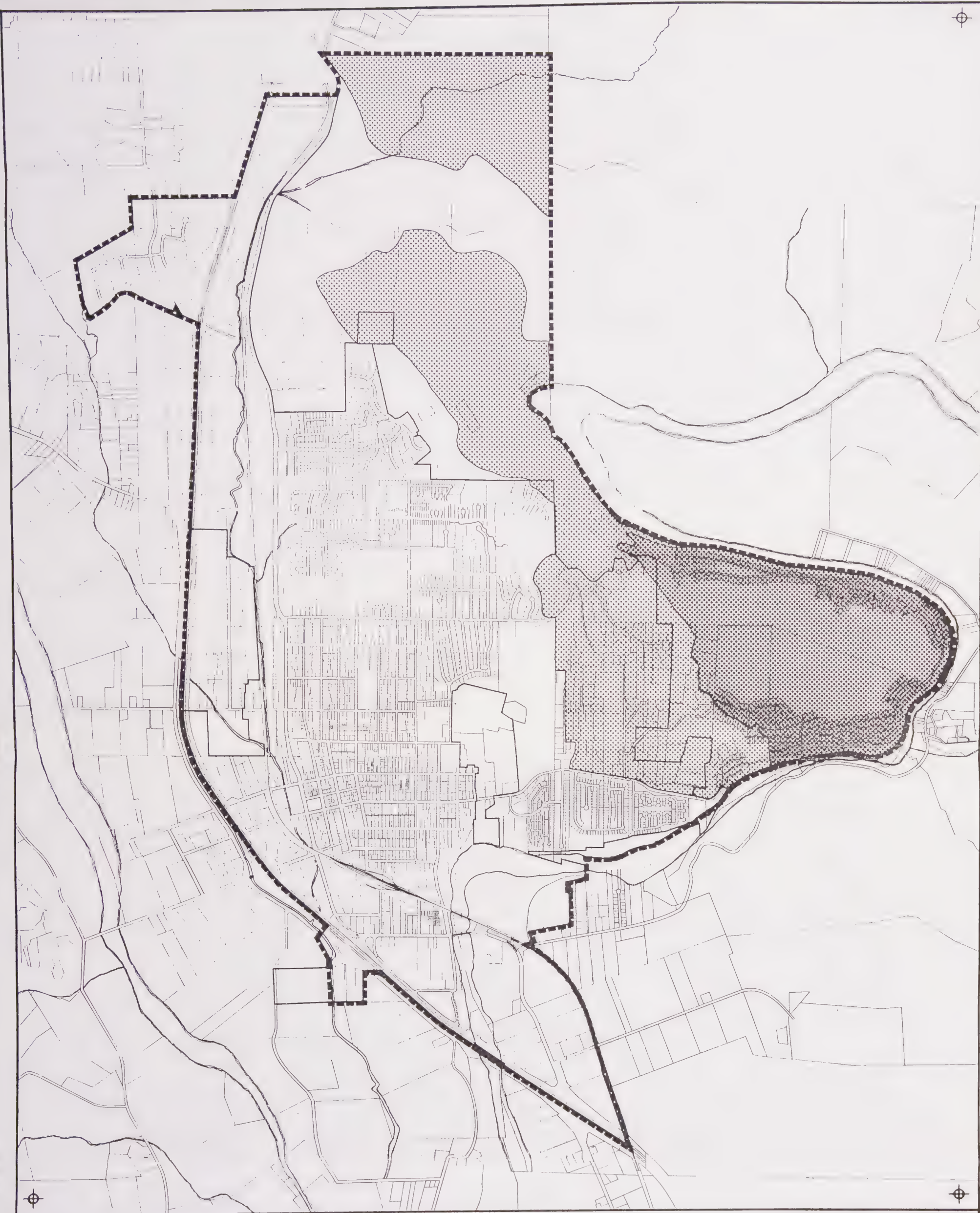
The California Department of Forestry has developed its own classification of fire hazards in Sonoma County using the categories "Moderate," "High," and "Very High." According to their map, which does not include incorporated Healdsburg, all of Fitch Mountain and most of the unincorporated northern part of the Urban Service Area lies in the area of "Moderate" fire hazard potential. Lands west of Highway 101 and north of Dry Creek Road, including the Chiquita Road area, lie within a "High" fire hazard area. It should be noted that because the Department of Forestry maps were developed at a very gross level, the Healdsburg Fire Department's more detailed assessment is probably a more accurate representation of wildland fire potential.

The two areas of particular concern are the Fitch Mountain area and the northern part of the unincorporated Urban Service Area. Fighting fires in the Fitch Mountain area, including its incorporated western slopes, is hampered by access problems and availability of water. The western slopes of Fitch Mountain are accessible only by a number of dead-end roads including Acres Road, Coghlan Drive, Hassett Lane, Alta Vista Drive, McDonough Heights Road, Benjamin Way, Sunset Drive, and Valley View Drive. There is no north-south-through access in the area. Because many of these dead-end roads are long, fire response times are also long. In the Sunset Drive area, for example, response time averages eight minutes. Many of the homes in the unincorporated Fitch Mountain area are steep and have sharp turns, making some areas accessible only by smaller fire trucks. Here too there is very little through-circulation.

Lack of water supply and pressure also pose serious constraints on fire fighting. At higher elevations of the incorporated Fitch Mountain area, water pressure is marginal and storage capacity is insufficient to maintain fire flows for two hours. Both water pressure and storage capacity in the Fitch Mountain Water Company system are inadequate for fire fighting purposes.

Structural fires are the result of many sources (e.g., electrical shorts, cooking fires). Because Healdsburg has very few older buildings and because the Healdsburg Fire Department has undertaken an aggressive inspection program in recent years, there are relatively few fires in the older section of Healdsburg. This area has the highest concentration of commercial and industrial buildings and is normally assumed to pose the greatest structural fire hazard potential. City-wide, the structural fire hazard potential is relatively low.

Chapter VI, Public Facilities and Services, discusses water services and fire protection services in greater detail.



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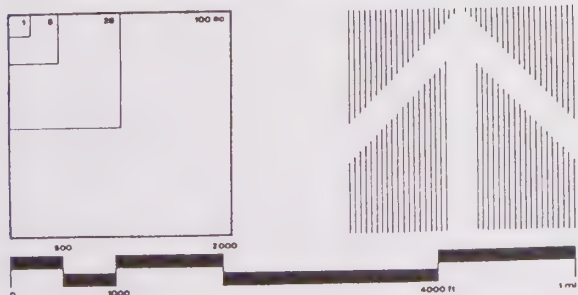




Figure IX-4. WILDLAND FIRE HAZARD

-  High Fire Hazard Area
-  Extreme Fire Hazard Area

Source: Healdsburg Fire Department, 1987

FLOODING

Flooding in the Urban Service Area is associated with three principal watercourses: the Russian River; Dry Creek; and Foss Creek. Historically, the areas along Foss Creek and in the southern part of the Urban Service Area have experienced the most severe flooding problems. Major flood control improvements along all three watercourses have, however, substantially lowered the frequency and extent of flooding. Construction of Coyote Dam at Lake Mendocino in 1970 has substantially reduced flooding along the Russian River, while construction of Warm Springs Dam at Lake Sonoma has substantially reduced flooding along Dry Creek.

In 1984, the City constructed the first of a series of water detention basins along Foss Creek (between Grove Street and the railroad tracks) to relieve flooding. A second water detention basin is planned for Foss Creek on the east side of Healdsburg Avenue when development occurs within the upper drainage basin of Foss Creek. Localized flooding will continue to occur along Foss Creek even with these improvements due to narrow channel segments and obstructions in the creek channel.

Figure IX-5 depicts the 100-year and 500-year floodplains as shown on the Federal Emergency Management Agency (FEMA) maps prepared for the National Flood Insurance Program. Some interpretation was necessary in preparing Figure IX-5 to reconcile FEMA maps prepared separately for the City and unincorporated areas.

Figure IX-5 suggests Foss Creek will pose the greatest flooding problem for new development, pending channel improvements. Flooding in the Old Redwood Highway area will continue to pose a problem, but only in the event of a very rare (i.e., once in 500 years) flood.

DAM FAILURE INUNDATION

Under the requirements of state law, owners of dams must prepare maps showing the areas of potential flooding in the event of a sudden or total failure of the dam. The most like cause of such a failure would be an earthquake. These maps, which are reviewed and approved by the California Office of Emergency Services, are to be used in preparing emergency procedures for evacuation and control of populated areas subject to inundation.

Inundation maps have been prepared for both Coyote Dam/Lake Mendocino and Warm Springs Dam/Lake Sonoma. Figure IX-6, which incorporates information from these maps, shows the potentially devastating effects of the failure of either one of the dams. Failure of Coyote Dam, assuming the lake was full, would flood virtually all the city south of Grant Street. Failure of the Warm Springs Dam, under the same assumption, would flood virtually all the city except for the hilly areas on the east and northeast.

Given the existing development pattern in Healdsburg and the remoteness of possible dam failure, the information in Figure IX-6 has no direct implications for land use planning in Healdsburg. The primary use of this information is in preparing emergency evacuation plans. To date, the city has developed no such plans.

EMERGENCY RESPONSE

To respond to a war emergency or natural or man-made disasters, the City of Healdsburg has established the City Disaster Council (Chapter 6 of the Healdsburg City Code). The Council membership includes the Mayor (as chairman), the Director of Emergency Services (the City Manager), the Assistant Director of Emergency Services (the Fire Chief) and various department heads. The Council's chief responsibilities are to develop emergency and mutual-aid plans and agreements and to implementing ordinances and resolutions for City Council adoption.

Under the State Emergency Services Act of 1970, the City of Healdsburg has prepared an Emergency Plan (updated last in 1980). The plan establishes operational procedures to be followed in the event of military attack and in the event of natural and man-made disasters. Among the peacetime emergencies specifically mentioned in the plan are:

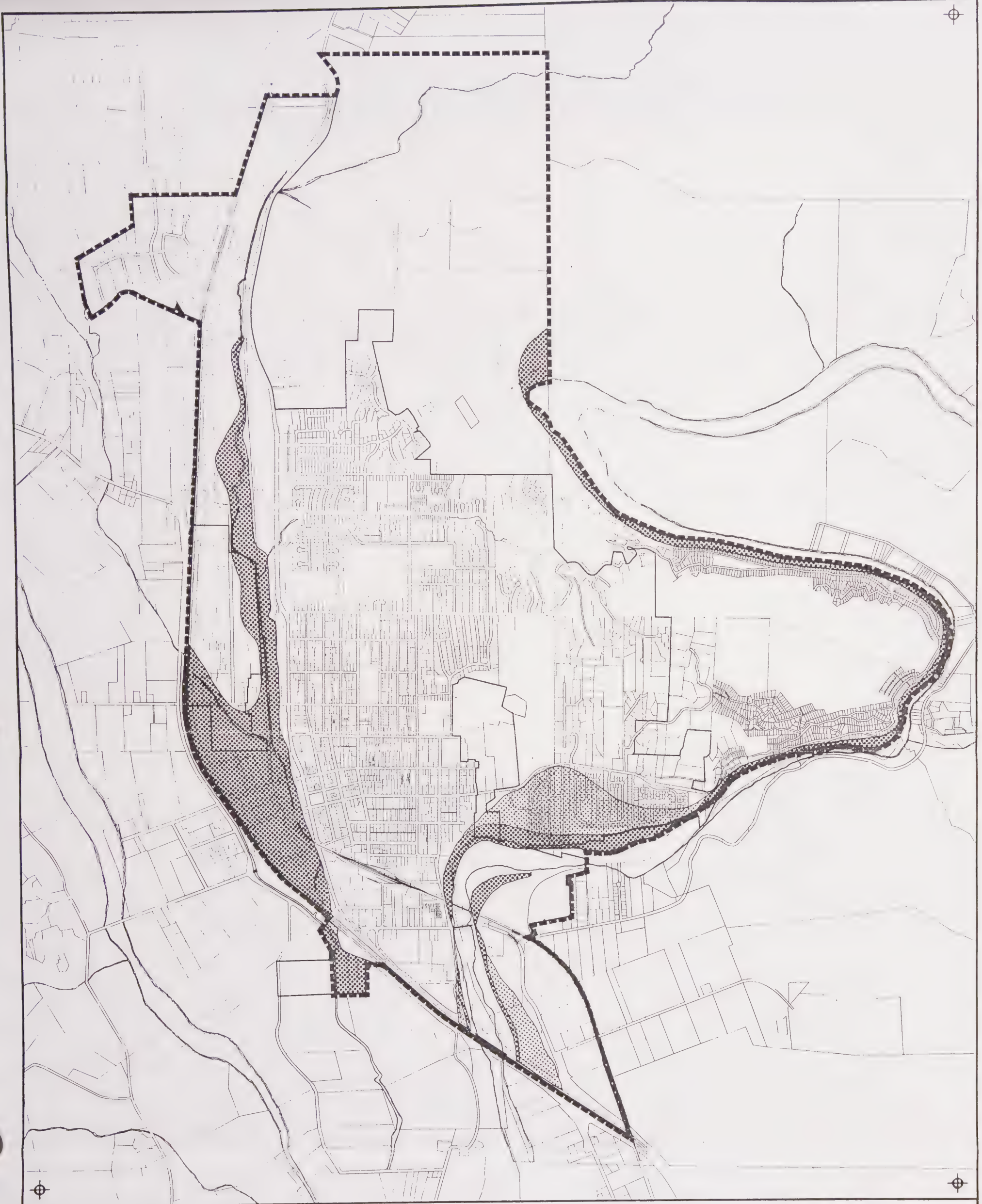
- Earthquake
- Flood
- Storm (wind and rain)
- Fire/explosions
- Landslides
- Accidents (both transportation and industrial)
- Civil disturbance
- Epidemics
- Pollution
- Any other occurrence which endangers a significant segment of the public or their property.

The plan outlines procedures to be followed during each phase of an emergency (e.g., "pre-emergency," "emergency possible," "emergency expected," "emergency onset," and "post-emergency") and assigns specific responsibilities to City staff in the event of an emergency.

NOISE

As part of the state mandated noise element, state law and guidelines prepared by the State Office of Noise Control (ONC) require that certain major noise sources and areas containing noise sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions within the community. Contours may be prepared in terms of either the Community Noise Equivalent Level (CNEL) or the Day-Night Average Level (L_{dn}), both of which are descriptors of total noise exposure at a given location for an annual average day. This noise exposure information should be incorporated into the general plan as a basis for achieving land use compatibility through the long-range planning and project review. It can also be used to provide baseline levels and noise source identification for development and enforcement of a local noise control ordinance.

According to state law and ONC Guidelines, the following major noise sources should be considered in preparing a noise element:



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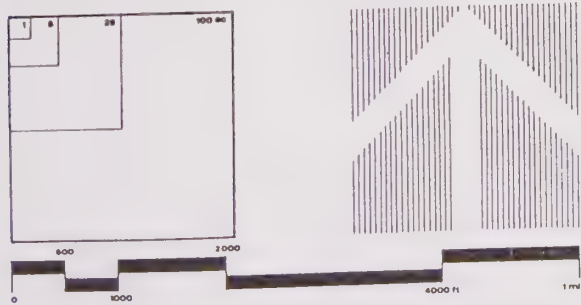
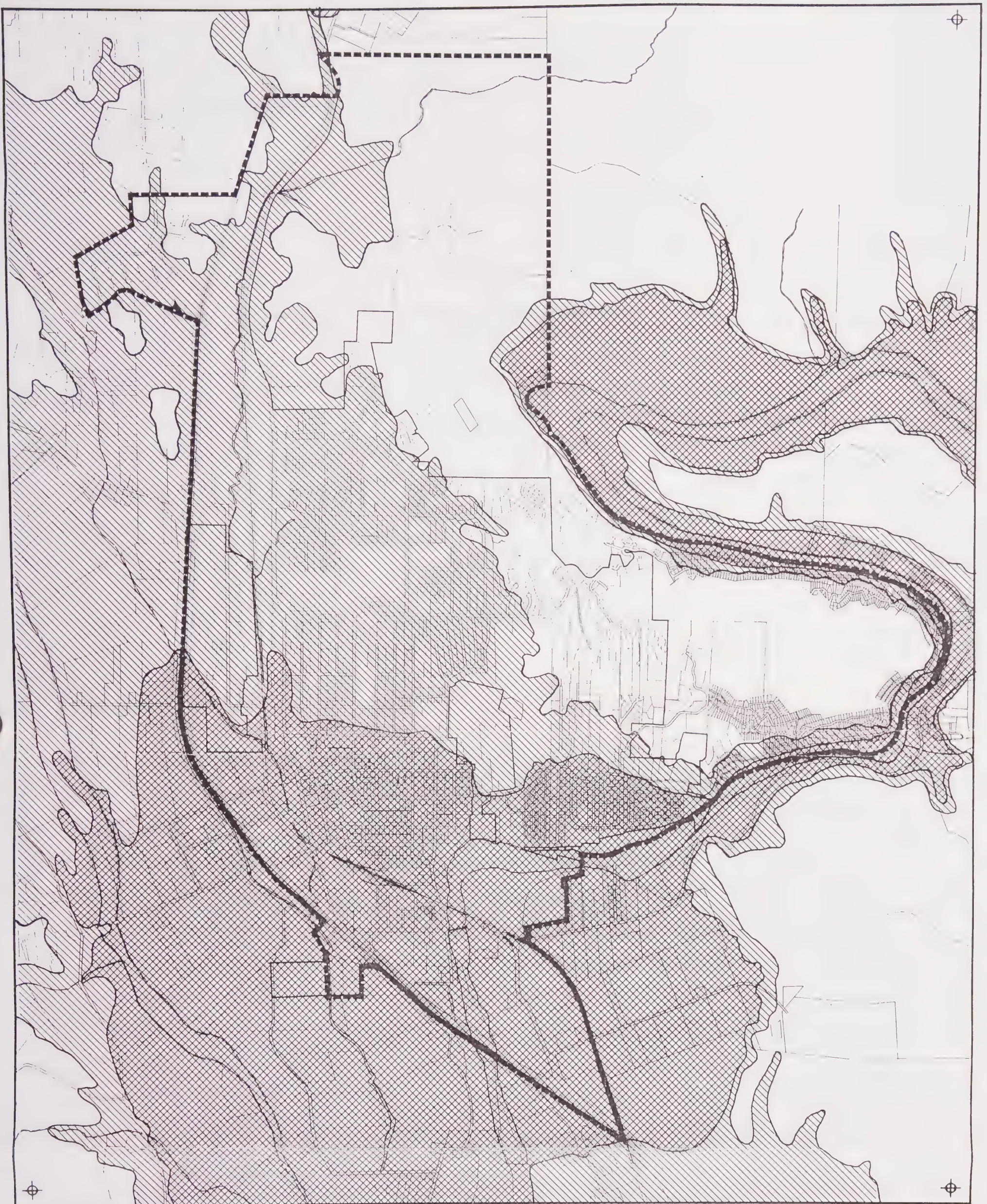


Figure IX-5. FLOOD HAZARD

- 100-Year Flood Plain
- 500-Year Flood Plain

Source: Federal Emergency Management Agency, Sonoma County (Unincorporated Areas), 1982, and City of Healdsburg, 1983



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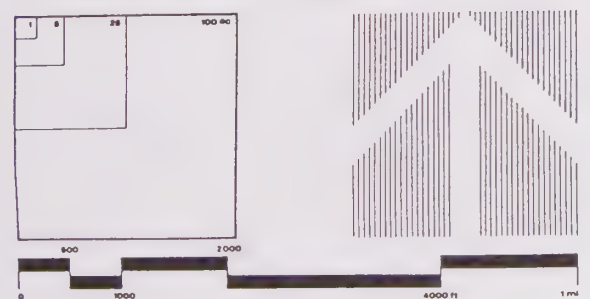



Figure IX-6. DAM FAILURE INUNDATION AREAS

-  Potential Area Inundated by Failure of Coyote Dam
-  Potential Area Inundated by Failure of Warm Springs Dam

Source: Division of Dam Safety, California Department of Water Resources

1. Highways and freeways
2. Primary arterials and major local streets
3. Railroad operations
4. Aircraft and airport operations
5. Local industrial facilities
6. Other stationary sources

Noise sensitive areas to be considered in the noise element should include areas containing the following noise sensitive land uses:

1. Schools
2. Hospitals
3. Rest homes
4. Long-term medical or mental care facilities
5. Other uses deemed noise sensitive by the local jurisdiction

Noise and Its Effect on People

Noise is often defined simply as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers for many years have grappled with the problem of translating objective measurements of sound into directly correlatable measures of public reaction to noise. The descriptors of community noise in current use are the results of these efforts and represent simplified, practical measurement tools to gauge community response. Before elaborating on these descriptors, it is useful to first discuss some fundamental concepts of sound.

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, now called Hertz (Hz) by international agreement.

The speed of sound in air is approximately 770 miles per hour, or 1,130 feet per second. Knowing the speed and frequency of a sound, one may calculate its wavelength, the physical distance in air from one compression of the atmosphere to the next. An understanding of wavelength is useful in evaluating the effectiveness of physical noise control devices such as mufflers or barriers, which either absorb or block sound waves to reduce sound levels.

To measure sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The logarithmic scheme also reflects the exponential manner in which the ear reacts to sound. The formula for the sound pressure level, in decibels, is then:

$$\text{SPL} = 20 \log p/p_o, \text{ dB, or}$$

$$= 10 \log (p/p_o)^2, \text{ dB;}$$

where: SPL = sound pressure level

p = measured pressure

p_o = reference pressure (20 micropascals).

Use of the decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in levels (dB) are uniform throughout the scale, corresponding closely to human perception of relative loudness.

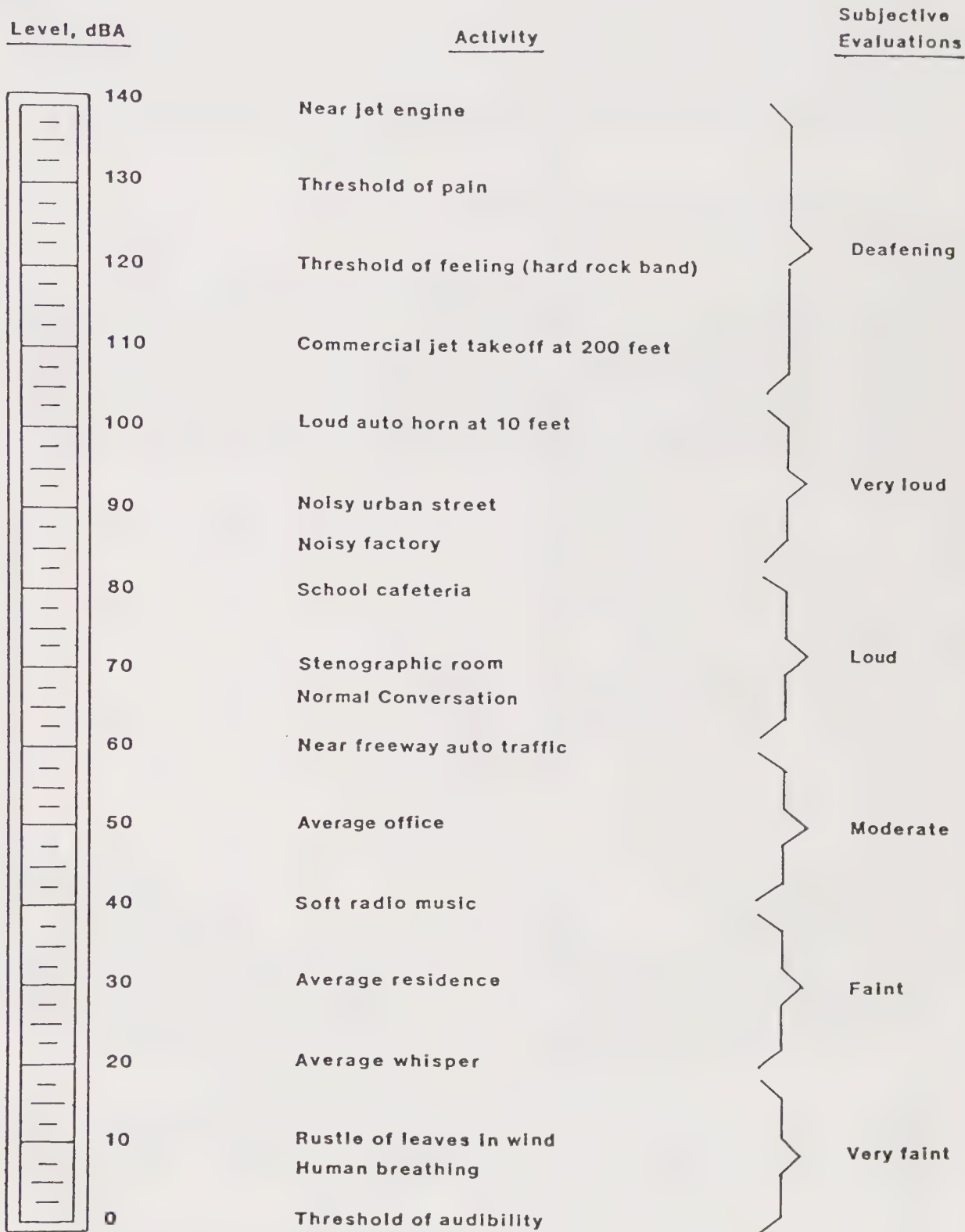
The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. In the range of usual environmental noise levels, however, perception of loudness is relatively predictable and can be approximated by weighting the frequency response of a sound level measurement device (called a sound level meter) by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. Generally, a change in noise level of at least 5 dBA is required before any noticeable change in community response would be expected. A 10 dBA change in noise level is perceived as being subjectively a doubling in loudness, which would likely result in an adverse public reaction. Typical A-weighted sound levels generated by noise sources commonly found in the community are illustrated in Chart IX-2.

It is common to describe community noise in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}), which is the sound level corresponding to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} and CNEL, and is well correlated with community response to noise.

Two composite noise descriptors are commonly used, the L_{dn} and CNEL scales. The L_{dn} (day-night average level) is based upon the average hourly L_{eq} over a 24-hour day, with a 10 decibel penalty applied to nighttime (10 p.m. to 7 a.m.) L_{eqs} . The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were subjectively twice as loud as daytime exposures. The CNEL (Community Noise Equivalent Level) is also based upon the average hourly L_{eq} over a 24-hour day, except that an additional 5 decibel penalty is applied to evening (7 p.m. to 10 p.m.) hourly L_{eqs} . The CNEL scale was developed for the California Airport Noise Regulations and is applied specifically to airport noise assessment. The L_{dn} scale is a simplification of the CNEL concept, but the two will usually agree, for a given situation, within plus or minus 1 dB. Like the L_{eq} , these descriptors are averages and tend to disguise variations in the noise environment. Furthermore, because they presume increased evening or

CHART IX-2

EXAMPLES OF NOISE LEVELS



Sources: M. David Egan; FAA data.

nighttime sensitivity, they are best applied as criteria for land uses where nighttime noise exposures are critical to the acceptability of the noise environment, such as residential developments.

Noise in the community has often been cited as a health problem, not so much in terms of actual physiological damage, such as hearing impairment, but more in terms of reducing general well-being and contributing to undue stress and annoyance. Interference with human activities such as sleep, speech, recreation, and tasks demanding concentration or coordination, are the principal causes of noise-induced health problems and stress.

Existing and Future Noise Environment

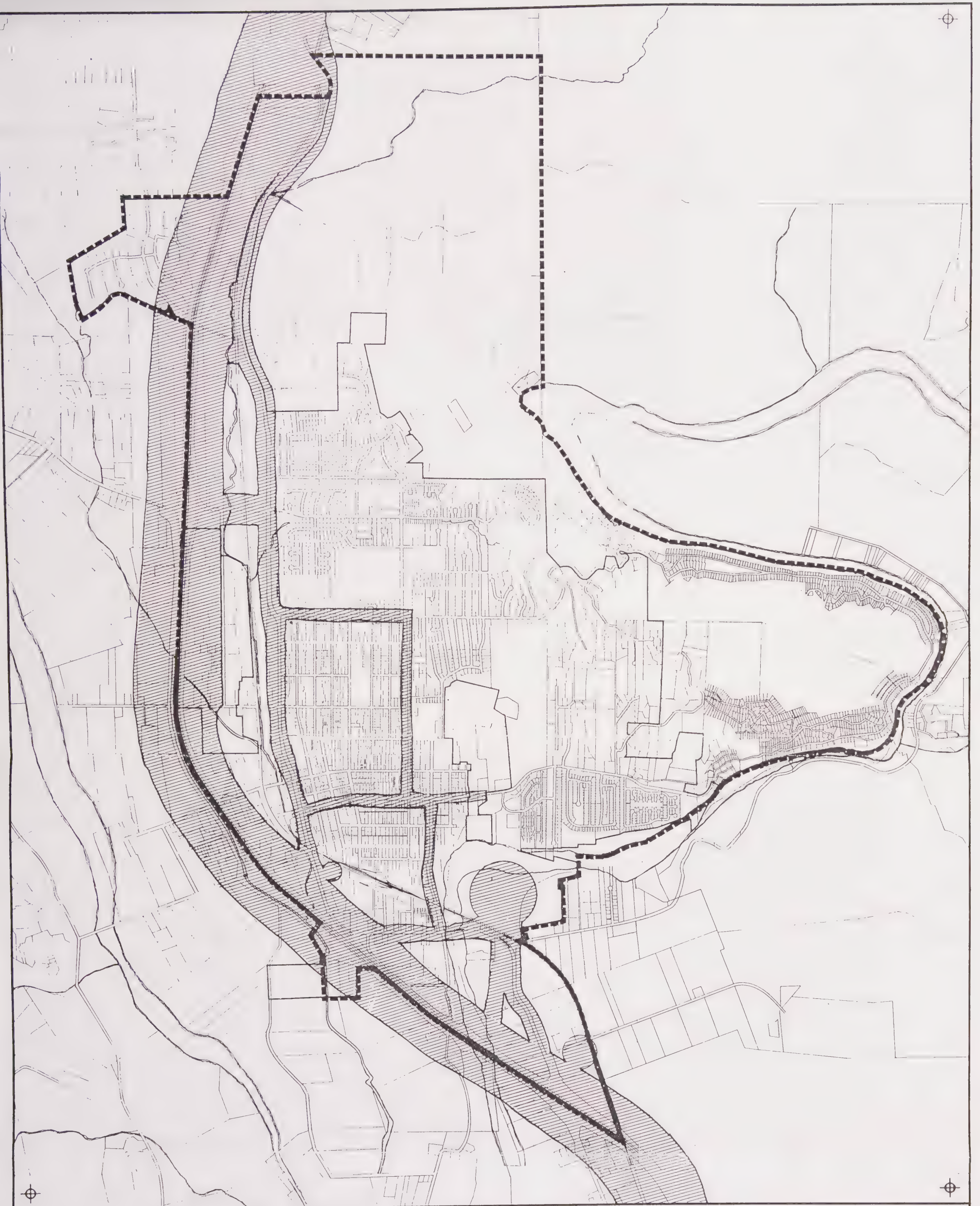
Major Noise Sources

Based on discussions with City officials and the results of field studies by the Consultant Team, it was determined that there are four major sources of community noise within Healdsburg. These sources are Highway 101, major local streets, railroad operations and local industrial activities. The Healdsburg Municipal Airport is located north of town and away from existing or expected future noise-sensitive land uses (see Figure IX-8). Specific noise sources selected for study are listed below:

- a. Highways and Major local streets
 - Highway 101
 - Healdsburg Avenue
 - Dry Creek road
 - Mill Street
 - Powell Street
 - Matheson Street
 - University Avenue
 - Front Street
- b. Railroad operations
 - Northwestern Pacific Railroad
- c. Industrial facilities
 - City of Healdsburg Power Substation
 - Boise Cascade
 - Syar Industries
 - Nu Forest Products
 - Harris Pine Mills
 - Simi Winery

A combination of noise monitoring and analytical noise modeling techniques was used to develop generalized L_{dn} noise contours around the major noise sources identified above for existing (1985) conditions.

Analytical noise modeling techniques generally make use of source-specific data including average levels of activity, hours of operation, seasonal



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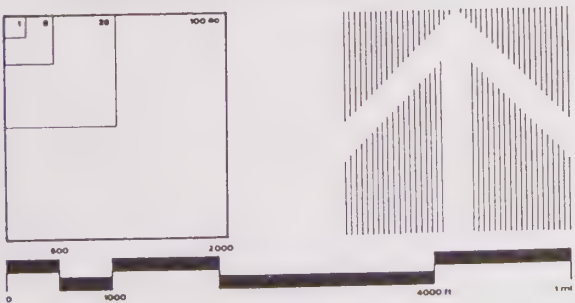
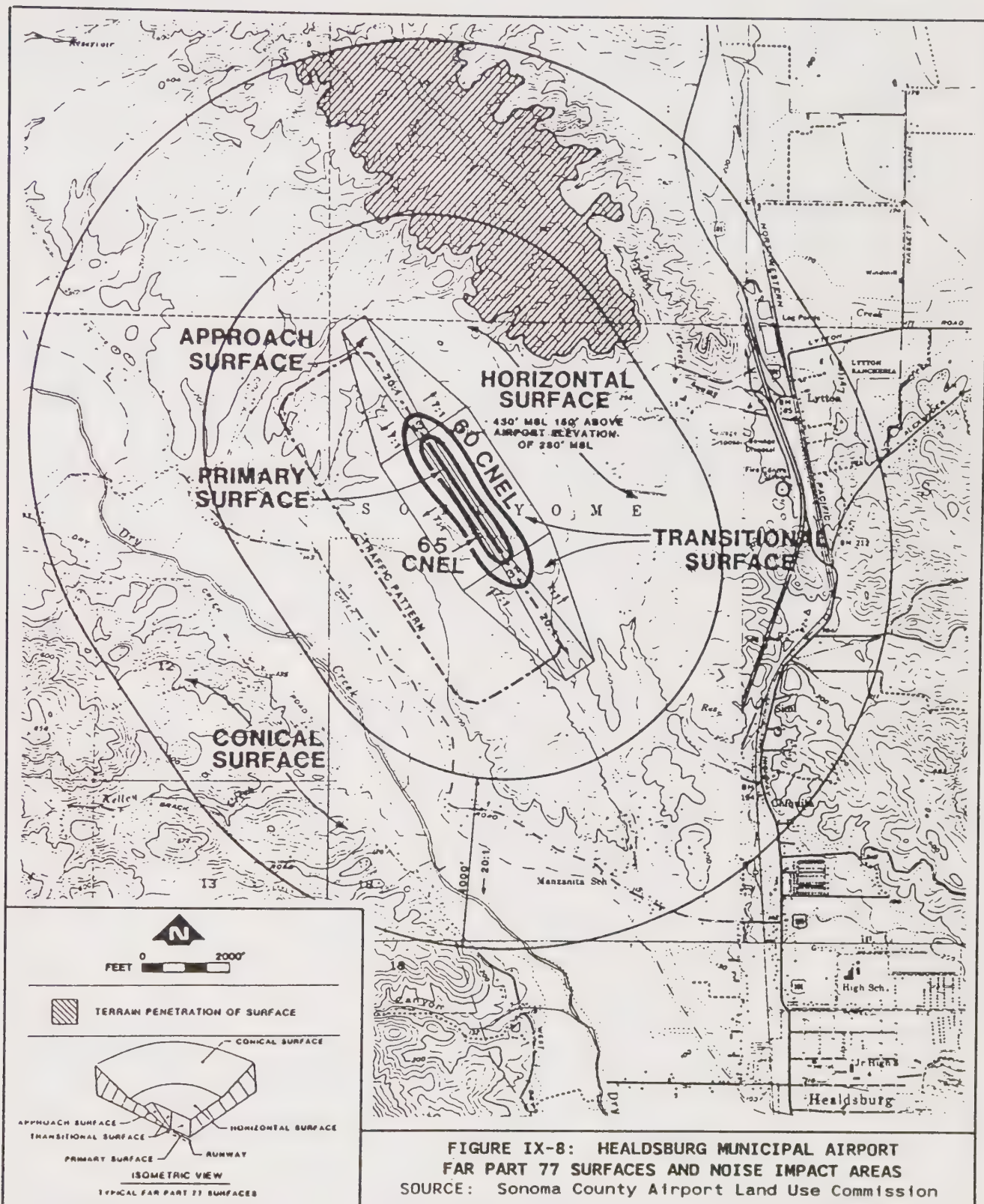


Figure IX-7. GENERALIZED 60dB Ldn CONTOURS-
EXISTING CONDITIONS

/// Area Within 60 dB Ldn Contour

Sources: Consultant Team, 1985;
CALTRANS, 1985



**FIGURE IX-8: HEALDSBURG MUNICIPAL AIRPORT
FAR PART 77 SURFACES AND NOISE IMPACT AREAS**
SOURCE: Sonoma County Airport Land Use Commission

fluctuations, and average levels of noise from source operations. Analytical methods have been developed for a number of environmental noise sources including roadways, railroad line operations, railroad yard operations, industrial plants and aircraft/airport operations. Such methods will produce reliable results as long as data inputs and assumptions are valid for the sources being studied. The analytical methods used in this study closely follow recommendations made by the State Office of Noise Control, and were supplemented where appropriate by field-measured noise level data to account for local conditions within the Healdsburg area. It should be noted that the noise exposure contours presented in this Chapter are based upon annual average conditions, and are not intended to be site-specific where local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location.

Highways and Major Local Streets

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop L_{dn} contours for Highway 101 and major local streets within the Healdsburg area. The FHWA Model is the analytical method presently favored by most state and local agencies, including Caltrans, for traffic noise prediction. The FHWA Model is based upon reference energy emission levels for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within plus or minus 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and to adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic volumes and truck percentages for existing and future conditions on Highway 101 in the Healdsburg area were obtained from Caltrans as summarized in Table IX-2. Future projections of annual daily traffic volumes on U.S. Highway 101 are based upon a yearly growth factor of 2.7% which is the five-year average for 1978-1983 as published by Caltrans. Traffic volumes for existing conditions on major local streets are based on counts taken in 1985 by the City of Healdsburg and the Consultant Team. These data are also summarized in Table IX-2. The day/night distributions of traffic reported in Table IX-2 for Highway 101 and major local streets are based on file data for similar roadways in other communities. Truck percentages for major local streets are estimates based upon the best information available.

Using data from Table IX-2 and the FHWA methodology, traffic noise levels, as defined by L_{dn} , were calculated for existing (1985) traffic volumes on U.S. Highway 101 and major local streets. Distances from the center of the roadway to L_{dn} contour values of 70, 65, and 60 dB are summarized in Table IX-3. The locations of the 60 dB L_{dn} contours have been plotted in Figure IX-7 for existing traffic volumes. It should be noted that, since calculations do not take into consideration shielding caused by local buildings or topographical features, the distances reported in Table IX-3 and indicated in Figure IX-7 should be considered as worst-case estimates.

TABLE IX-2

TRAFFIC DATA

Roadway	Year	AADT	% Day ¹	% Night ²	% MT ³	% HT ⁴	Speed
U.S Highway 101							
(Dry Creek Interchange)	1985	24,500	84.0	16.0	3.6	8.5	55
(Dry Creek Interchange)	2000	37,500	84.0	16.0	3.6	8.5	55
Healdsburg Avenue							
(North of Chiquita Rd)	1985	5,888	90.0	10.0	5.0	5.0	45
(Dry Creek Rd to Chiquita)	1985	6,950	90.0	10.0	5.0	5.0	35
(Powell to Dry Creek Rd)	1985	10,300	90.0	10.0	5.0	5.0	35
(Lincoln To Powell)	1985	14,200	90.0	10.0	5.0	5.0	35
(Piper to Lincoln)	1985	11,100	90.0	10.0	5.0	5.0	35
(Matheson to Piper)	1985	11,042	90.0	10.0	5.0	5.0	35
(Mill to Matheson)	1985	9,846	90.0	10.0	5.0	5.0	35
(Chardonay to Mill)	1985	13,160	90.0	10.0	5.0	5.0	35
(U.S. 101 to Chardonay)	1985	7,296	90.0	10.0	5.0	5.0	35
Dry Creek Rd							
(Healdsburg Ave to US 101)	1985	8,600	90.0	10.0	5.0	5.0	35
Mill Street							
(Healdsburg Ave to US 101)	1985	7,417	90.0	10.0	5.0	5.0	25
Powell Street							
(Healdsburg Ave to University Ave)	1985	5,390	90.0	10.0	2.5	2.5	25
Matheson Street							
(Healdsburg Ave to University Ave)	1985	4,755	90.0	10.0	2.5	2.5	25
(University Ave to Orchard)	1985	4,950	90.0	10.0	2.5	2.5	25
University Avenue							
(Powell to Matheson)	1985	3,582	90.0	10.0	2.5	2.5	25
Front Street							
(Healdsburg to Matheson)	1985	5,138	90.0	10.0	2.5	2.5	25

¹ Percent of AADT occurring between 7:00 a.m. and 10:00 p.m.

² Percent of AADT occurring between 10:00 p.m. and 7:00 a.m.

³ Percent of AADT composed of medium trucks.

⁴ Percent of AADT composed of heavy trucks.

Sources: Caltrans, Consultant Team, City of Healdsburg, Consultant Team File Data

TABLE IX-3
DISTANCE (FEET) FROM CENTER OF
ROADWAY TO L_{dn} CONTOURS

Roadway	<u>1985</u>		
	70 dB	65 dB	60 dB
U.S Highway 101 (Dry Creek Interchange)	158	339	731
Healdsburg Avenue (North of Chiquita Rd)	33	71	153
(Dry Creek Rd to Chiquita)	27	58	125
(Powell to Dry Creek Rd)	35	75	162
(Lincoln to Powell)	43	93	201
(Piper to Lincoln)	37	79	170
(Matheson to Piper)	37	79	170
(Mill to Matheson)	22	48	104
(Chardonnay to Mill)	27	59	126
(U.S. 101 to Chardonnay)		28	60
			129
Dry Creek Rd (Healdsburg Ave to US 101)	31	67	144
Mill Street (Healdsburg Ave to US 101)	19	40	86
Powell Street (Healdsburg Ave to University)	10	23	49
Matheson Street (Healdsburg Ave to University)	10	21	45
(University Ave to Orchard)	10	21	46
University Avenue (Powell to Matheson)	8	17	37
Front Street (Healdsburg Ave to Matheson)		10	22
			47

Source: Consultant Team

Railroad Operations

Railroad operations within the City of Healdsburg consist of through-freight and local switching operations by the Northwestern Pacific Railroad, which runs through the western and southern parts of town. According to the Trainmaster's office in Petaluma, the average number of railroad operations through Healdsburg is two trains per day on Monday, Wednesday and Friday, with no other operations during the week. The northbound train passes through town during the mid-morning hours, and the southbound train passes through town during the late afternoon or early evening hours. There are presently no nighttime (10:00 p.m. - 7:00 a.m.) operations. The train generally turns around in Ukiah for the southbound trip back to Petaluma. Trains are usually composed of one or two locomotives with anywhere from 20 to 90 cars depending upon shipping demands. Posted speed through Healdsburg is 40 miles-per-hour. It is unknown at this time whether or not railroad operations will increase in the future.

Noise levels, from railroad operations as defined by L_{dn} , were evaluated using the "Simplified Procedure for Assessment of Noise Emitted by On-Line Railroad Operations" (Wyle Research Technical Memorandum No. 59157-1, 1974) which calculates noise levels based upon the frequency, type and time of day of operations. In terms of L_{dn} , noise levels from railroad operations in the community are insignificant (less than 60 dB at 50 feet) due to their infrequent occurrence. Noise levels from individual train movements would be expected to result in short-term impacts on residents located near the tracks. It is estimated that at distances of approximately 100 feet from the tracks maximum noise levels from passing locomotives or cars would range from 80-90 dBA. Maximum noise levels from the warning horn at the same location would range from 95-100 dBA. Such levels are quite noticeable, but would occur briefly a few times per week.

Industrial Facilities

Noise exposure information for local industrial facilities was developed from operational data obtained from plant operators and from noise level data obtained at reference locations around the facilities. Consistent with the L_{dn} methodology, a 10 dB penalty was added to noise levels occurring at night (10:00 p.m. - 7:00 a.m.) where applicable. In discussing future operations with plant operators it was readily apparent that too many variables exist to allow meaningful projections of future activity or noise levels.

● City of Healdsburg Power Substation

Noise measurements conducted at this facility on April 9, 1985 indicated that noise levels range from 45-47 dBA at approximately 100 feet from the two transformer installations. A 120 Hz pure tone is evident. Based upon the assumption that noise levels are constant 24 hours per day, the generalized 60 dB L_{dn} contour is located less than 50 feet from the center of the facility. This is not a significant stationary noise source, although noise levels may be audible to nearby residents due to the pure tone nature of the noise source. The City plans to install a 10-foot slump stone wall around the substation in the near future. This will greatly mitigate the noise impacts adjacent to the facility.

- Boise Cascade

The Boise Cascade plant in Healdsburg is a remanufacturing plant which sizes lumber and constructs truss assemblies. Hours of operation are 7:00 a.m. - 3:30 p.m. during the winter months and 6:00 a.m. - 2:30 p.m. during the summer months. There is occasionally a night shift during periods of peak demand for trusses. Stationary noise generating equipment includes saws, planers and a whistle used to announce shift changes or rest periods. Mobile equipment includes trucks and forklifts. Truck loading operations generally occur between 3:00 p.m. and 10:00 p.m. Noise level measurements conducted on April 9, 1985, indicated that noise levels from all stationary and mobile equipment excluding the whistle average 50-55 dBA at the property line. The whistle generates a noise level of 70 dBA at a distance of approximately 200 feet. Based upon the hours of operation and noise levels described above, the generalized 60 dB L_{dn} contour is located near the property line of the plant as shown in Figure IX-7. It is unknown what future changes may occur in plant operations or equipment which could alter noise levels generated by the plant. (Source: Mr. Rick Browning, Operations Manager)

- Syar Industries

Syar Industries operates a sand and gravel plant along with concrete and asphalt batch plants. Normal hours of operation are 7:00 a.m. to 4:00 p.m. with occasional double shift operations 6:00 a.m. to 10:00 p.m. Sand and gravel extraction operations run from May through mid-November. During this time there are from 90 to 120 heavy truck movements per day along the haul road next to the river which connects the plant and excavation area. Based upon noise measurements conducted on April 9, 1985 and the above-described hours of operation, a generalized 60 dB L_{dn} contour has been prepared for the combined operation of all stationary and mobile noise sources within the City of Healdsburg as shown in Figure IX-7. The generalized contour is representative of a worst-case condition where both processing and excavation activities are occurring simultaneously. This would occur during the summer and fall months. (Source: Mr. Dick Tonascia, Manager, Basalt Rock Company, Inc.)

- Nu Forest Products

This is a remanufacturing plant and distribution center. Normal hours of operation are 7:00 a.m. to 3:00 p.m. with some overtime worked during periods of peak product demand. Night operations have not occurred during the past three to four years. Stationary noise sources include saws, planers and cyclones. Mobile noise sources include forklifts and trucks. The most noticeable source of noise at any distance from the plant is the operation of the two cyclones located in the north-central area of the plant. Figure IX-7 shows a generalized 60 dB L_{dn} contour for typical operating hours based upon measurements conducted April 9, 1985. It is unknown what future changes in plant operations or equipment may occur which could alter noise levels generated by the plant. (Source: Mr. Michael F. Herbert)

- Harris Pine Mills

This is a milling plant which sizes and shapes lumber for use in the assembly of outdoor furniture. Normal hours of operation are 8:15 a.m. to 5:00 p.m. Occasionally, operations begin at 7:00 a.m. and last as late as 9:30 p.m. Stationary sources of noise include planers, saws, drills, cyclones and a hogger. Most stationary equipment is enclosed within buildings. The most significant source of noise is the hogger located in the east-central area of the plant. A generalized 60 dB L_{dn} contour has been prepared based upon noise level measurements conducted April 9, 1985, and the hours of operations described above, as shown in Figure IX-7. (Source: Mr. Vern Lemon, Plant Manager)

- Simi Winery

The Simi Winery is located between the railroad and Highway 101 in the northern part of town. Noise monitoring conducted on April 9, 1985, indicated that there are no significant stationary noise sources associated with this operation due to the fact that most equipment is enclosed within the buildings. Mobile equipment includes forklifts and trucks. Normal hours of operation are 8:00 a.m. to 5:00 p.m. During the crush season (September-October), the plant operates 24-hours a day. This would include truck movements on haul road between the winery and surrounding vineyards. Based upon the noise level measurements and hours of operation described above, the winery does not generate noise levels exceeding 60 dB L_{dn} at locations outside the winery where noise-sensitive land uses are located. Future changes in equipment or operations which could significantly alter noise levels generated by the winery are not anticipated at this time. (Source: Mr. Jack E. Loffmark, Vice President)

Noise Sensitive Areas

The following noise sensitive land uses have been identified within Healdsburg.

- a. Residential Areas

- All dwellings including single-family, multi-family, mobile homes, etc.

- b. Schools

- Fitch Mountain Elementary School
- Healdsburg High School
- Healdsburg Junior High School
- Healdsburg Elementary School
- St. John's School
- Live Oak Preschool

c. Hospitals

- Healdsburg General Hospital
- Healdsburg Convalescent Hospital

d. Parks and Recreation Areas

- Healdsburg Memorial Beach
- Gibb's Park
- Tayman Park/Golf Course
- Recreation Park/Giorgi Park
- Railroad Park.

A community noise survey was conducted to document noise exposure in areas of the community containing noise sensitive land uses. Noise monitoring sites were selected to be representative of typical conditions in areas of the community where such uses are located. Noise monitoring was conducted on April 9, 1985, at three different times during the daytime and nighttime hours at each site so that reasonable estimates of L_{dn} could be prepared. Noise monitoring equipment consisted of a Bruel & Kjaer (B&K) Type 2218 integrating sound level meter equipped with a B&K 4165 1/2" microphone. The measurement system was calibrated in the field prior to use with a B&K Type 4230 acoustical calibrator, and complies with all applicable requirements of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The locations, measured noise levels and estimated L_{dn} values for each of the six community noise survey monitoring sites are summarized in Table IX-4. The monitoring sites are depicted on a map of the community in Figure IX-9.

TABLE IX-4

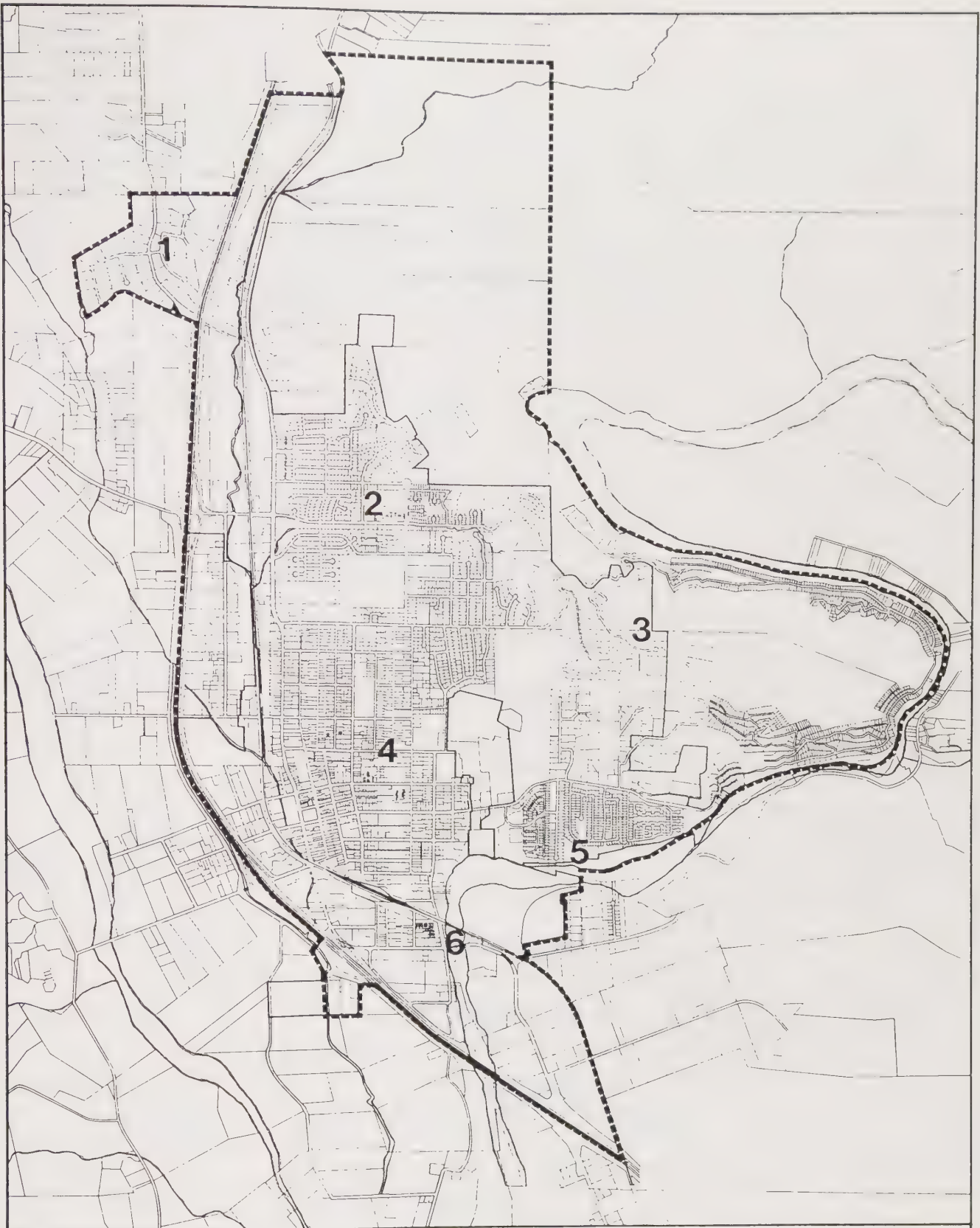
SUMMARY OF MEASURED NOISE LEVELS AND ESTIMATED
DAY-NIGHT AVERAGE LEVELS (L_{dn}) IN AREAS
CONTAINING NOISE SENSITIVE LAND USES

Site #	Description	L_D	L_N	L_{dn}
1	Burgundy Rd @ Chablis Road	49 dBA	43 dBA	51 dB
2	Prentice Dr near Terrace Blvd	51 dBA	38 dBA	50 dB
3	Villa Chanticleer	41 dBA	25 dBA	40 dB
4	Piper St @ Brown St	56 dBA	36 dBA	54 dB
5	Orchard St near Prune Tree Dr	48 dBA	28 dBA	46 dB
6	Front St near Healdsburg Ave	61 dBA	50 dBA	61 dB

L_D : L_{eq} during daytime (7:00 a.m. - 10:00 p.m.) hours.

L_N : L_{eq} during nighttime (10:00 p.m. - 7:00 a.m.) hours.

Source: Consultant Team



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTNER AND ASSOCIATES



Figure IX-9

COMMUNITY NOISE MONITORING SITES

Source: Consultant Team, 1985

CHART IX-3
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL – LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES						
RESIDENTIAL – MULTI. FAMILY						
TRANSIENT LODGING – MOTELS, HOTELS						
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES						
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES						
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS						
PLAYGROUNDS, NEIGHBORHOOD PARKS						
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES						
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL						
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE						

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

Source: California Office of Noise Control

FINDINGS

- Virtually all of Fitch Mountain and much of the northern part of the Urban Service Area appears to be subject to intermediate or high slope instability. This suggests that these areas should not be developed intensely and that the development that does occur in these areas needs to be sited and designed to minimize exacerbation of slope instability problems and to minimize exposure of new development to damage that could occur through landslides and soil creep.
- While the potential for surface rupture within the Urban Service Area appears to be low, care should be taken to ensure that new development is not located astride faults if subsequent investigation indicates these faults are potentially subject to surface rupture. In addition, badly crushed rock and soft materials associated with these fault zones may be subject to landslides and present poor soil conditions for foundations.
- Groundshaking represents the greatest seismic threat to the Urban Service Area. In the event of a major earthquake within the region, there will likely be some damage to older (pre-1933) unreinforced masonry buildings in the downtown area. Fortunately, there are few of these structures in the city. Wood-frame structures will also probably experience some damage, but there is less threat to life in these structures. The General Plan should include a mitigation program for addressing the potential hazards to the older buildings in the downtown area since these structures pose the greatest threat to life.
- While there is some potential for liquefaction in the Urban Service Area, particularly in areas with deep alluvium, the level of risk is difficult to assess without more detailed sub-surface information on soils and high groundwater. Liquefaction would have the greatest effect on multistory buildings and critical facilities, such as the fire station.
- Wildland fire hazards pose the greatest threat to life and property in the Fitch Mountain area and in the northern unincorporated part of the Urban Service Area. The fire hazard potential in the Fitch Mountain area is a particular concern because of poor access and inadequate water pressure and fire flows. New development in these high and moderate fire hazard areas should be designed to minimize exposure of structures to these fire hazards through such features as clearance around structures and fire resistant roof materials. At the same time, very low density development is indicated for these areas.

As development in these high fire hazard areas occurs, improvements to the circulation system and water system will be necessary to improve fire fighting capabilities.

- Flooding in the Urban Service Area has been substantially reduced by dam construction since 1970 and construction in 1984 of a water retention basin along Foss Creek. The major areas of flooding concern, however, will continue to be along Foss Creek and along the Russian River in the southern part of the Urban Service Area.

- Should Warm Springs Dam or Coyote Dam ever collapse, most likely as a result of an earthquake, the effects on Healdsburg could be devastating. While this possibility has no direct implications for land use planning in Healdsburg, the information concerning areas of potential flooding should be used to develop emergency evacuation plans.
- Healdsburg is a relatively quiet town. Its principal sources of noise are Highway 101 and Healdsburg Avenue. Increased development and attendant increased traffic will increase exposure of residents to higher noise volumes. In locating new development, particularly residential development and noise sensitive land uses, consideration must be given to both existing and future noise impacts from along these major traffic corridors. Additionally, the City's current noise ordinance should be expanded and revised to reflect the information in this document and policies of the revised General Plan.

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PERSONS CONTACTED

- James O. Berkland, County Geologist, Santa Clara County
- Mr. Rick Browning, Operations Manager, Boise Cascade
- Mr. Michael F. Herbert, Nu Forest Products
- Mr. Vern Lemon, Plant Manager, Harris Pine Mills
- Mr. Jack E. Loffmark, Vice President, Simi Winery
- Mr. Dick Tonascia, Manager, Basalt Rock Company, Inc.

GLOSSARY

Ambient Noise Level - The composite of noise from all sources. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

A-Weighted Sound Level - The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

CNEL - Community Noise Equivalent Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 a.m. and after addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

Critical Facility - Includes facilities housing or serving many people or otherwise posing unusual hazards in case of damage from or malfunction during an earthquake, such as hospitals, fire, police, and emergency service facilities, utility "lifeline" facilities, such as water, electricity, and gas supply, sewage disposal, and communications and transportation facilities.

Cumulative Period (for noise) - An additive period of time composed of individual time segments which may be continuous or interrupted.

Decibel, dB - A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

Equivalent Energy Level, L_{eq} - The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.

Fault - A fracture in the earth's crust forming a boundary between rock masses that have shifted.

Active Fault - A fault that has moved recently and which is likely to move again. For planning purposes, "active fault" is usually defined as one that shows movement within the last 11,000 years and can be expected to move within the next 100 years.

Potentially Active Fault - (1) A fault that moved within the Quaternary Period before the Holocene Epoch (the last 2,000,000 to 11,000 years); (2) A fault which, because it is judged to be capable of ground rupture or shaking, poses an unacceptable risk for a proposed structure.

Inactive Fault - A fault which shows no evidence of movement in recent geologic time and no potential for movement in the relatively near future.

Fire Break - A natural or artificial barrier where plants have been removed for fire-control purposes.

Fire Hazard Severity Scale - A system of classifying and delineating wildland areas of varying potential for fire using three criteria: fuel loading (in terms of wildland plants); weather; and slope.

Fire Hazard Zone - An area where, due to slope, fuel, weather, or other fire-related conditions, the potential loss of life and property from a fire necessitates special fire protection measures and planning before development occurs.

Fixed Noise Source - A device or machine which creates sounds while fixed or stationary, including but not limited to residential, agricultural, industrial and commercial machinery and equipment, pumps, fans, compressors, air conditioners and refrigeration equipment.

Flood Plain - A lowland or relatively flat area adjoining inland or coastal waters that is subject to a one-percent or greater chance of flooding in any given year (i.e., 100-year flood).

Fuel Break - A wide strip of land on which plants have been thinned, trimmed, pruned, or changed to types which burn with lower intensity so that fires can be more readily put out.

Fuel Loading - The quantity of plants and other fuel per unit of land area.

Fuel Management or Fuel Modification - The use or removal of plants in the wildlands to reduce the intensity of an approaching wildfire and to increase the ability to prevent or fight fires while preserving and enhancing environmental quality.

Greenbelt - A strategically located, landscaped zone of variable width in which a low volume of fuel is maintained in a "green" or "live" condition throughout the year by irrigation, designed to slow or stop the spread of fire and to prevent soil erosion (e.g., golf courses, parks).

Ground Failure - Mudslide, landslide, liquefaction, or the seismic compaction of soils.

Hazardous Building - A building that may be hazardous to the life in the event of an earthquake because it:

- (1) Was constructed prior to the adoption and enforcement of local codes requiring earthquake resistant design of buildings;
- (2) Is constructed of unreinforced masonry; or,
- (3) Exhibits any one of the following characteristics:

- Exterior parapets and ornamentation that may fall on passers-by;
- Exterior walls that are not anchored to the floors, roof, or foundation;
- Sheeting on roofs or floors incapable of withstanding lateral loads;
- Large openings in walls that may cause damage from torsional forces; or,
- Lack of an effective system to resist lateral forces.

Hazardous Material - An injurious substance, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals, and nuclear fuels.

Impulsive Noise - A noise of short duration, usually less than one second, with an abrupt onset and rapid decay.

Intruding Noise Level - The sound level created, caused, maintained, or originating from an alleged offensive source, measured in decibels, at a specified location while the alleged offensive source is in operation.

Landslide - A general term for a falling mass of soil or rocks.

L_{dn} - Day/Night Average Level. The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

(Note:) CNEL and L_{dn} represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the equivalent energy noise exposure for a shorter time period, typically one hour.

Liquifaction - A process by which water-saturated granular soils transform from a solid to a liquid state because of a sudden shock or strain.

L_{max} - The maximum A-weighted noise level recorded during a noise event.

L_n - The sound level exceeded "n" percent of the time during a sample interval. L_{10} equals the level exceeded 10 percent of the time (L_{90} , L_{50} , etc).

Maximum Credible Earthquake - The most severe earthquake that appears capable of occurring, based on present information, including (a) the seismic history of the area; (b) the length of significant faults within 100 kilometers; (c) the type(s) of faults; and, (d) the tectonic or structural history of the region.

Minimum Fire Flow - A rate of water flow that should be maintained to halt and reverse the spread of a fire.

Mobile Noise Source - Any noise source other than a fixed noise source.

Mudslide (Mudflow) - A flow of very wet rock and soil.

Noise Exposure Contours - Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and L_{dn} are the descriptors utilized herein to describe community exposure to noise.

Potentially Hazardous Facility - Includes dams and reservoirs, nuclear reactors, tall buildings, other buildings housing many people, such as schools, prisons, and hospitals, and other structures containing large quantities of potentially explosive or toxic materials.

Simple Tone Noise - Any noise which is distinctly audible as a single pitch (frequency) or set of pitches as determined by the enforcement officer.

Subsidence - The gradual, local settling or sinking of the earth's surface with little or no horizontal motion. (Subsidence is usually the result of gas, oil, or water extraction, hydrocompaction, or peak oxidation, and not the result of a landslide or slope failure.)

Surface Rupture - A break in the ground's surface and associated deformation resulting from the movement of a fault.

Wildland - A nonurban, natural area which contains uncultivated land, timber, range, watershed, brush, or grasslands.

CHAPTER X

SCENIC RESOURCES AND URBAN DESIGN

INTRODUCTION

Healdsburg's scenic resources and its built environment define the visual quality of the city and constitute its visual image. The form and quality of the built environment are important factors in giving visual identity, structure, and meaning to the city. The perceptions that residents and tourists hold of Healdsburg are greatly influenced by the visual image they have formed. If this image is pleasant, vivid, distinctive, and memorable, the viewer establishes a positive, harmonious relationship with the built environment and the city becomes a meaningful and delightful experience. By contrast, if the built environment is confusing, ugly, monotonous, chaotic, congested, and dirty, the viewer can become disoriented, anxious and detached, and the city thus becomes a source of stress and displeasure.

The high visual quality of the rural and city landscapes and the large number of historic buildings are the major scenic and built environment resources in Healdsburg. These resources provide a visual framework within which to address scenic and urban design issues and upon which to build a more visually coherent and attractive city.

Although there is a general need to enhance the scenic quality of the city, the downtown area and the Healdsburg Avenue commercial corridor warrant the greatest attention. Virtually all recent reports concerning the downtown area reach the same conclusion: the area is in serious need of upgrading. There is clarity neither in the entries to the city nor the arrival in downtown. The business district lacks visual coherence and imaginability. Automobile circulation, traffic and parking dominate the pedestrian area. Most businesses fail to capitalize on the historical qualities and charm of the nearby residential neighborhoods, and the Plaza, a jewel-like historical center to the community, appears uncertain of its functional role in the town center.

This chapter begins by setting forth a series of the basic concepts and guiding principles for structuring and enhancing the visual and scenic resources of the natural and built environments. Second, it provides an inventory of the city's scenic resources and major urban design elements. Third, it identifies those issues related to the management of scenic resources and the design of the urban environment.

This chapter is largely based on original field work and analysis, as reflected in the text and graphics, although it also draws on existing information from various urban design reports and studies previously prepared for the City of Healdsburg.

SCENIC RESOURCES

Context

Healdsburg is located at the northern end of the Sonoma Valley which extends northward from Rohnert Park in central Sonoma County. The Alexander Valley, a major wine growing area, lies to the northeast of the city, and Dry Creek Valley, also an important wine producing area, is located to the northwest. Healdsburg is thus the southern gateway to these significant scenic, rural agricultural areas. Santa Rosa, the major urban area in Sonoma County, lies 12 miles to the south, with Windsor located approximately halfway in between. The apparent southern edge of the North Coastal Wine Region is at Windsor; thus Healdsburg is clearly located within a major wine producing region. Although the distance between Windsor and Healdsburg is only six miles, the rural agricultural character of these six miles is central to the high scenic and open-space qualities which define the city. If these lands become more intensively developed or suburbanized, Healdsburg will lose its visual definition to the south and simply become the northern end of the greater Santa Rosa metropolitan area.

Highway 101, the principal north-south coastal route in California, extends through the Cotati Valley, linking Healdsburg with Santa Rosa and San Francisco to the south and with Ukiah and Eureka to the north. This highway is designated as a Scenic Highway on the Sonoma General Plan. North of San Francisco, Highway 101 winds through the rolling hills and valleys of the Coastal Range. The scenery along this portion of Highway 101 is outstanding, characterized by picturesque rural landscapes with cattle and horses grazing, wooded and grass covered hills, vineyards and orchards.

Inventory

A number of significant topographic and other geographic features define and visually differentiate the city from the contiguous rural natural and agricultural landscapes. Of these features, Fitch Mountain is the most prominent. This dominant landform, a wooded remnant of a resistant ancient rock unit, rises steeply to a height of 500 feet above the valley floor. Fitch Mountain, in combination with the hills to the north and northeast, give a natural visual edge to the city along its existing northern and eastern boundaries.

The Russian River is an equally striking and dominant scenic resource. To the north, the river flows in a southeasterly direction until it forms a series of major bends directly east of the city. Two of these bends--one encompassing Digger Bend, the other encompassing Fitch Mountain--constitute a significant scenic resource and provide a visual and physical boundary to the east. The river then flows in the southwesterly direction to the center of the city's southern edge, where it again makes a major bend and flows southward. These river bends and the corresponding riparian vegetation are important scenic and visual resources. They provide visually contained segments or units along the river corridor and provide unique terminal landscape views to each segment, thus increasing the scenic quality.

Highway 101, constructed approximately 20 feet above grade, provides topographic definition to the western edge of the city. Since this segment of the Highway is heavily landscaped, it is visually attractive, and thus constitutes an important scenic resource. Furthermore, it serves as a visual barrier or wall along the western edge of the city, virtually blocking all views of the vineyards to the west of Highway 101. The hills further to the west are, however, visible above the highway grade, as is Amity Hill, located directly northwest of Highway 101 and Dry Creek Road.

A number of other natural features serve to define the high level of scenic amenities of Healdsburg and to enhance the quality of life for its residents. The abundance of heritage trees, the oak savannah vegetation and chaparral vegetation on the ridgelines to the north and east, the distant wooded hills to the west, and the Foss Creek riparian corridor all contribute to the city's aesthetic environment. In addition to these natural features there are a substantial number of human-created scenic resources. The most apparent of these scenic features are the vineyards and orchards which border the city, the large number of historic buildings, the city's parks, the Plaza, the rich complement of street trees, and the many specimen trees, shrubs, and lawns in the residential neighborhoods. Furthermore, the high air quality and the favorable climatic regime serve to enhance the enjoyment of these scenic resources.

As shown in Figure X-1, there are several major roads and road corridors which also constitute important existing and potential scenic resources. Westside Road and Dry Creek Road afford outstanding scenic quality directly outside the city to the west. Unfortunately the in-city segments of these roads lack this high scenic quality. Bailhache Avenue, south and east of the Urban Service Area, is also a road of high scenic quality. Portions of Fitch Mountain Road are of very high scenic value; however, intermittent segments contain unappealing views of unmaintained porperties and densely parked automobiles. Healdsburg Avenue and Old Redwood Highway have short highly scenic segments within the southern and northern portions of the city; however, there are substantial sections with unattractive mixed uses and industrial uses which degrade their scenic quality. Matheson Street is generally of high scenic quality and serves to link Fitch Mountain Road with Healdsburg Avenue. Powell Street, which serves as the northern link between Fitch Mountain Road and Healdsburg Avenue is not as scenic as Matheson, but has considerable potential for upgrading, primarily in terms of street tree enhancement.

Healdsburg Avenue is the critical link in this network of scenic roadways, but in its current state constitutes a major liability. The upgrading of Healdsburg Avenue's visual environment is of major importance in restoring high visual quality to the central business area and to the principal north-south circulation corridor.

Figure X-2 shows these significant scenic and visual features.

Factors Influencing Scenic Resources

A number of factors influence the scenic resources of the city. First, the high scenic value of the natural environmental setting is a major factor influencing the visual quality of Healdsburg. The geographic location and

dominance of Fitch Mountain and the Russian River are basic elements in the visual composition of the city. The riparian corridors, heritage trees, and the numerous other major trees in the residential neighborhoods greatly influence the high scenic quality. This dominance and importance of trees in the cityscape is very apparent in view of the city from Fitch Mountain and the hills to the north. Given the centrality of vegetation in terms of scenic resources, the city's street tree program takes on major importance in structuring the visual landscape.

A second factor influencing the city's scenic resources is the rich and extensive stock of distinctive historic and other older homes and commercial structures. These structures add greatly to the scenic quality of the city, and are central to its small town atmosphere and visual appeal. These buildings also contribute greatly to the sense of human scale reflected in Healdsburg.

A third factor influencing the scenic resources is the presence of productive agricultural lands within the city. Since the outlying agricultural areas constitute very significant scenic resources, and since Highway 101 effectively blocks views of these vineyard and orchard areas to the west of the city, the visual presence of agricultural lands within the Urban Service Area constitute a very important visual link to the highly scenic outlying rural lands.

The fourth factor influencing scenic resources is a negative factor. Most of Healdsburg Avenue and the commercial downtown area is dominated by automobiles and trucks and highly visible parking lots. Furthermore, there is a substantial adverse scenic/visual impact resulting from the strip development and mixed-use area along substantial portions of Healdsburg Avenue, and the intensive industrial development at the far northern and southern edges of the city. Visually insensitive commercial development in the downtown area is also an adverse factor influencing scenic resources.

Finally, to a lesser degree, overhead utility lines, satellite dishes, and outdoor advertising also constitute factors adversely influencing scenic resources.

URBAN DESIGN

The most distinctive elements in the urban fabric of Healdsburg are the Plaza and historical buildings in the downtown area, the rich complement of historic buildings, and tree-lined streets throughout the City. In the downtown area these distinctive elements currently compete with a predominance of undifferentiated, eclectic buildings of mixed quality. In the downtown area, the streets, most notable Healdsburg Avenue, Center Street, and North Street, lack the visual richness and landscape quality of the residential areas. In spite of its high scenic value, the Plaza, due to its small scale, provides only a limited visual influence on the total downtown area. In brief, with a few notable and isolated exceptions, much of downtown Healdsburg lacks a strong "sense of place," and in its undistinctiveness, looks very much like the downtown areas of many small towns.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

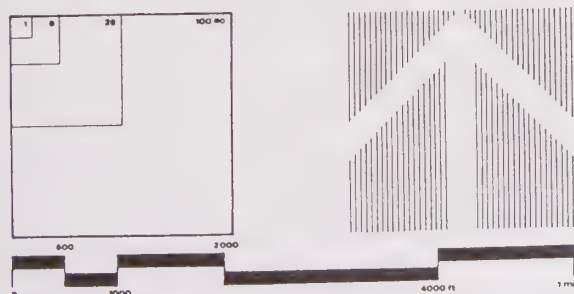
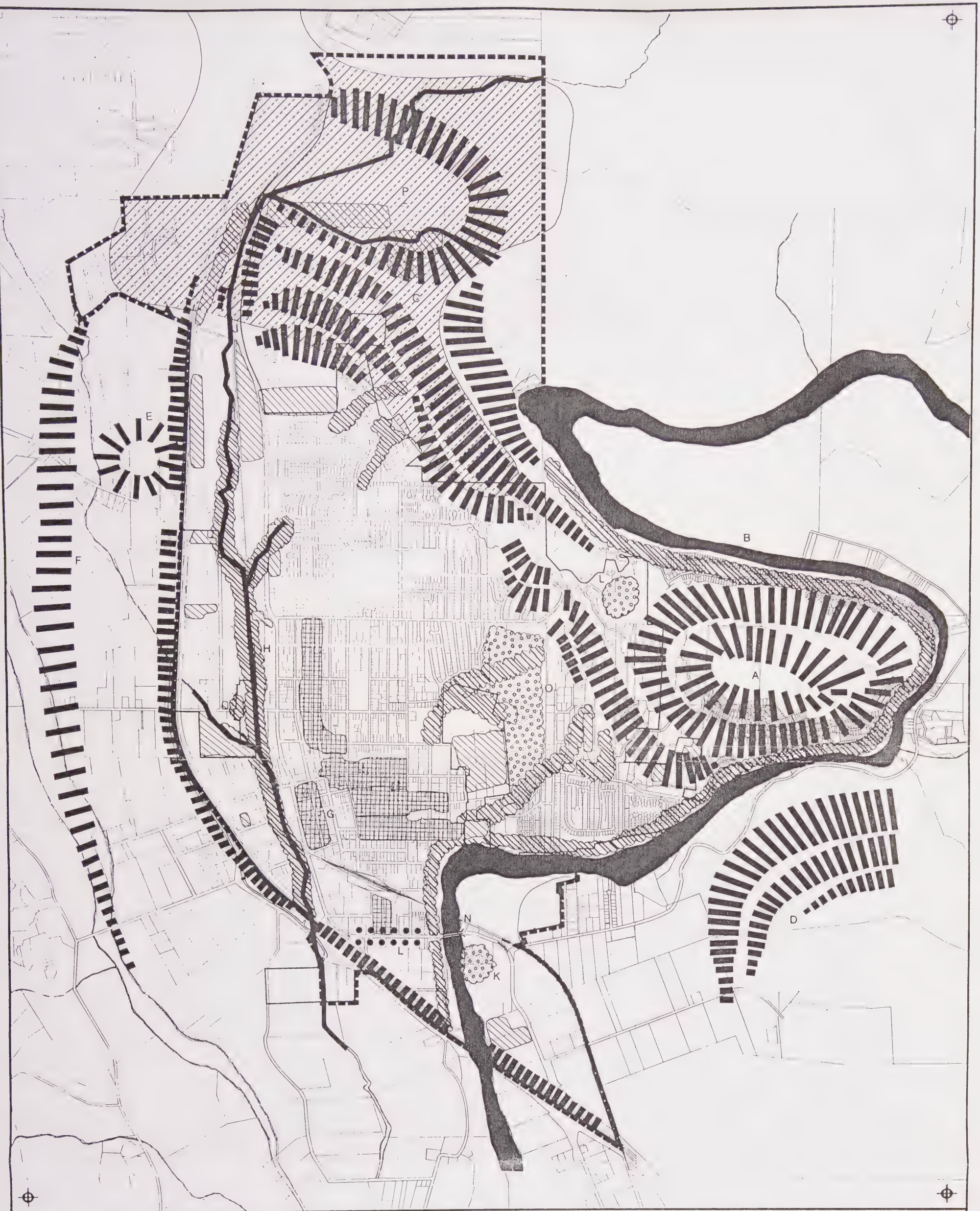


Figure X-1. SCENIC HIGHWAYS

- Designated Scenic Highways (Sonoma Co. General Plan)
- Existing Scenic Road Segments
- - - Segments Requiring Minor Upgrading
- Segments Requiring Major Upgrading

Sources: Sonoma County General Plan, 1978;
Consultant Team, 1985



HEALDSBURG CALIFORNIA

GENERAL PLAN
J. LAURENCE MINTIER & ASSOCIATES

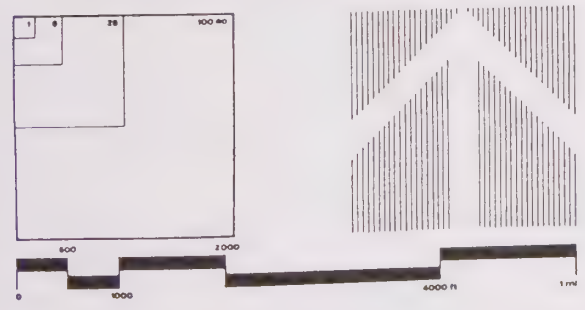


Figure X-2. SCENIC & DISTINCTIVE VISUAL FEATURES

- | | |
|--|---|
| A. Fitch Mountain | L. Villa Chanticleer |
| B. Russian River | M. Heritage Palm Trees |
| C. Northern Foothills | N. Old Steel Bridge |
| D. Southeastern Foothills | O. Tayman Park/Golf Course |
| E. Amity Hill | P. Valley & Foothills |
| F. Western Foothills (one mile west of city) | Historic Districts (Proposed) |
| G. Healdsburg Plaza | Vineyards & Orchards |
| H. Foss Creek | Critical Open Space |
| I. Route 101 Embankment & Landscaping | - Scenic Areas (Sonoma County General Plan) |
| J. Simi Winery & Environs | Riparian Vegetation |
| K. Memorial Beach | Highly Visible Topographic Features |
| | Parks |

Sources: City of Healdsburg General Plan, 1973;
Sonoma County General Plan, 1978;
Consultant Team, 1985

In the residential neighborhoods the tree-lined streets, with well tended lawns and well kept residences, reflect considerable pride and care and give the neighborhoods distinctive visual quality and appeal. The visual appeal of the tree-lined Highway 101 corridor with its excellent scenic views and vistas is unusual for a major public highway. Upon entering the downtown, however, the visual contrast is striking. The high scenic quality of the surrounding countryside and the visual amenities of the residential neighborhoods simply dissipate upon entering the commercial center of town. With the exception of the Plaza, some of the buildings facing it, and a few other isolated structures, there is no coherent architectural image. The absence of strong landscape elements also gives a barren feeling to the area. Furthermore, those activities which normally bring pedestrian life to a downtown such as dining, entertainment, and lodging establishments, are very limited in downtown Healdsburg.

Urban Design Concepts and Principles

In order to coherently discuss the visual structure of a city it is necessary to have an "image" of the city which simplifies its many complexities into a manageable number of essential elements and relationships. The most useful and widely-used system for identifying and classifying the important elements of urban form was formulated by Kevin Lynch in his book The Image of the City. Lynch's work, one of the most important modern contributions to large-scale design theory, provides a vital method of the evaluation of city form, and is an important guide for the building and rebuilding of cities.

Two principal questions are posed by Lynch: 1) "What does a city's form actually mean to the people who live there?" and 2) "What can the city planner do to make a city's image more vivid and memorable to its residents?" Through a number of case studies constructed to answer these questions, Lynch was able to identify five basic elements used to define the image of the city and to show how these elements give the city a 'sense of place'. These five elements--paths, edges, districts, nodes, and landmarks--are briefly discussed below:

Paths are the channels along which the observer customarily, occasionally, or potentially moves. They may be streets, walkways, transit lines, canals, or railroads. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths the other environmental elements are arranged and related.

Edges are the linear elements not used or considered as paths by the observer, serve as boundaries between two areas. Edges may be barriers, more or less penetrable, which close one region off from another or they may be seams, lines along which two regions are related and joined together. These edge elements, although probably not as dominant as paths, are for many people important organizing features, particularly in the role of holding together generalized areas, as in the outline of a city by water or wall.

Districts are medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters 'inside of', and which are recognizable as having some common, identifying character. Always

identifiable from the inside, they are also used for exterior reference if visible from the outside. Most people structure their city to some extent in this way, with individual differences as to whether paths or districts are dominant elements. It seems to depend not only upon the individual but also upon the given city.

Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which a person is traveling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, such as a street-corner hangout or enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol.

Landmarks are another type of point-reference, but in this case the observer does not enter them; they are external. They are usually a rather simply defined physical object: building, sign, store, or mountain. Their use involves the singling out of one element from the host of possibilities. Some landmarks are distant ones, typically seen from many angles and distances, over the tops of smaller elements, and used as radial references. They may be within the city or at such a distance that for all practical purposes they symbolize a constant direction. Other landmarks are primarily local, being visible only in restricted localities and from certain approaches. These are the innumerable signs, store fronts, trees, doorknobs, and other urban detail, which fill in the image of most observers. They are frequently used clues for identity and even of structure, and seem to be increasingly relied upon as a journey becomes more and more familiar.

In addition to these key elements, there are important urban design considerations related to the scale of the city as it pertains both to its actual size (as related to the regional settlement pattern) and its perceived size (as related to the sense of size generated from within the city).

Inventory

The following inventory is organized by the five elements set forth in the previous section. Important urban design features are shown in Figure X-3.

Paths

All the streets within the Planning Area constitute paths. The most significant path in terms of the community image is the Healdsburg Avenue Corridor, which extends in a north-south alignment throughout the entire length of the city, serving as the dominant circulation axis along which many of the major activity centers are located. The visual images of the city as perceived from this primary path vary dramatically along its entire length.



HEALDSBURG CALIFORNIA

GENERAL PLAN

J. LAURENCE MINTIER & ASSOCIATES

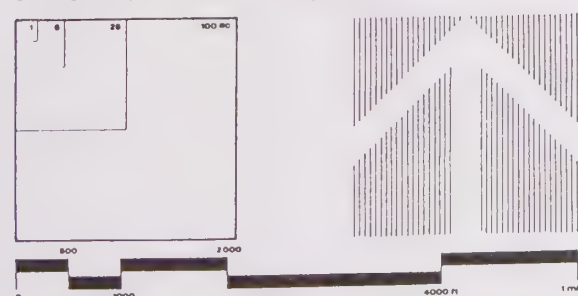


Figure X-3. IMPORTANT URBAN DESIGN FEATURES

AREAS WITH IMPORTANT URBAN DESIGN ASSETS

Healdsburg Plaza & Immediate Environs

Historic Districts

Agricultural Lands

AREAS WITH IMPORTANT URBAN DESIGN LIABILITIES IN NEED OF UPGRADING

- A. Healdsburg Avenue Corridor
- B. Balance of Downtown Area
- C. Dry Creek Rd. & Westside Rd.
(Within City Limits)
- D. Primary North & South City
Entrances

- E. City Gateways from the West
(Dry Creek Rd. & Westside Rd.)
- F. Industrial Areas Visible from Rt. 101
- G. Basalt Sand & Gravel Quarry
- H. Northwestern Pacific Railroad
- I. Areas Located in Local Scenic
Roadway Segments
- J. Boise-Cascade Operation

Source: Consultant Team, 1985

Among the strong images conveyed along Healdsburg Avenue are 'open fields', 'industrial', 'strip commercial', 'the downtown and the Plaza', 'rural landscape', and 'suburban boulevard'. The frequent image transitions along this major path add a certain sense of disorder to the perceptions of the non-resident traveler.

University Street, Fitch Street, Center Street and University Avenue are the other major north-south paths, but are clearly subordinate to Healdsburg Avenue. March Avenue, Powell Avenue, Grant Street, Piper Street, North Street, and Matheson Street constitute the principal east-west paths, with Powell and Matheson providing the links with Fitch Mountain Road. These important paths provide the major spatial orientation to the residents of the city.

Highway 101 is a major regional path for both Healdsburg residents and through travelers. Since it is traversed primarily at high speeds, it only provides fleeting impressions of Healdsburg, and as such does not convey a sense of 'being in Healdsburg'.

There are a number of important paths that link the planning area to the outlying rural agricultural areas. Dry Creek Road and Westside Road enter the city by penetrating the Highway 101 "edge". These roads have strong rural and scenic qualities which are abruptly lost upon entering the city. Old Redwood Highway serves as the northern and southern city entry path, providing contrasting images of the city as the road passes through 'open field', 'industrial', 'rural landscape', 'heavily wooded', and 'strip commercial' areas.

The Northwestern Pacific Railroad tracks are a regional path for moving goods and services, along which a number of industrial activities have grown up over time.

Although Healdsburg Avenue is the dominant path in the City, it does not serve as an important pedestrian path. There is, in fact, no evidence of a principal pedestrian path or series of paths, although the area around the Plaza has the most pedestrian traffic.

Edges

The Urban Service Area is defined by several relatively impenetrable edges. The Russian River, Highway 101, and to a lesser extent, the railroad track and Foss Creek constitute barrier-edge conditions. These edges block movement through or out of the city, albeit to varying degrees, and they frequently mark severe demarcations between different land uses and/or landscapes. Oak Park Cemetery and Tayman Park also form an edge along the easterly side of the city, and the topographic and vegetation changes in the foothill areas to the east and north provide a transitional edge between urban and rural environments. Jurisdictional boundaries are likewise important edges, although their effects may not be as pronounced. City limits and service area boundaries are examples of these edges, and in some areas define the urban form of Healdsburg. The coastal foothills and mountains west of the city also constitute an important edge to the city, although they are physically separated from the Urban Service Area by approximately three miles.

Districts

Districts within the city, though not formally defined, include the following: the "Plaza" and its surrounding building facades; the overall "Downtown" commercial area; the "suburban" commercial district along Healdsburg Avenue near Dry Creek Road; the "strip commercial" districts north and south of the "Plaza" (each with its own character); the industrial area lying along and between the railroad and the freeway, south of the "Plaza"; and a series of neighborhood districts whose boundaries might be defined differently by their individual residents depending upon subliminal perceptions of housing styles, street patterns or widths, vegetative cover, signing, and lighting.

Nodes

Unquestionably the Plaza is the most significant node in the city. It is the historical crossroad of business, government, and commerce. It is as an "enclosed" public space, and a visual point of reference when moving through the community. Countless other structures, crossroads, bridges, and public facilities, form a hierarchy of nodes in the City; however, none of these lesser nodes have the dominance of the Plaza in terms of a "sense of place or the focus of community "identity."

A number of street intersections constitute a second level of node importance: (1) Healdsburg Avenue and Dry Creek Road/March Avenue; (2) Healdsburg Avenue and Powell Street; (3) Healdsburg Avenue, Vine Street, and Westside Road/Mill Street (a node of considerable importance and complexity due in part to the railroad crossing).

Landmarks

Landmarks within the city include the Plaza, countless structures (public buildings, schools, churches, supermarkets, car dealerships, bridges), parks, railroad crossings, and a myriad of "individualized" landmarks as perceived by each person moving through the community. The most prominent landmarks outside the city limits are Fitch Mountain, the Russian River, and Amity Hill. The old metal bridge on southern Healdsburg Avenue crossing the Russian River is also an important and prominent landmark.

FACTORS INFLUENCING URBAN DESIGN

The physical expression of a city reflects many factors. City history, economic conditions, governmental regulations, civic pride, political leadership, the cohesiveness of the business community, and the design sensitivity of individual landowners all contribute in determining the built form of the city. Natural features such as topography, hydrology vegetation and climate are also important influences of the designed form of the city.

The Downtown Area Plan proposed in 1979 recognized most, if not all, of these important factors influencing the urban design of the downtown area. This plan acknowledged the importance of the City's history in shaping the plaza/commercial districts, it recognized the central importance of economic vitality, it recommended means for regulation and implementation, it set forth useful architectural and landscape considerations, and it identified

the necessity of business leadership and the wholehearted support of business and residential community.

In 1982, at the request of the City, an American Institute of Architects Regional/Urban Design Assistance Team (R/UDAT) prepared a development/design study for the City which contained many similar observations. This study examined the implications of the substantial pressures for growth in the northern Sonoma Valley, and provided the City with a useful set of ideas, evaluations, possibilities, and strategies for engaging its next increment of growth. Both the Downtown Area Plan and the R/UDAT Report recognized and set forth strategies for achieving the widely shared objective of significantly upgrading the downtown area through an urban design plan.

Following the R/UDAT study, the City embarked on an active program aimed at revitalizing the downtown area through a series of public and private actions. The first action was the purchase of 4.5 acres of land adjacent to, and west of the Plaza. This land, comprising three strategic blocks, was cleared in 1980 because of building vacancies and deterioration. Since that time it has created an unfortunate gap in the fabric of downtown Healdsburg. In 1985, the City and Redevelopment Agency secured a commitment from a private developer to construct a 40-room hotel, known as the Willow Creek Inn, on the southern part of the block facing the west side of the Plaza. In 1986, the City and Redevelopment Agency also secured a commitment from another developer to construct a retail/office complex on the northern part of the same block. These projects, expected to be completed by the end of 1988, will have a profound influence on the Plaza area and the downtown in general.

Furthermore, a Building Facade Rehabilitation Program begun in 1985 has provided \$120,000 in grant monies for local businesses upgrading building facades in commercial zones, with the emphasis on the downtown area.

In 1983 the City commissioned a study to develop guidelines and redevelopment strategies for the vacant land directly west of the Plaza. This study produced a West Plaza Project Design Manual which set forth a number of well-reasoned guidelines sensitive to the unique problems and opportunities presented by the existing conditions in the area. An updated West Plaza Master Plan has also been prepared, expanding the study area to include all the land bounded by Healdsburg Avenue and the railroad right-of-way between North and Matheson Streets.

Vineyard Plaza, a major neighborhood shopping center, located three blocks west of the Plaza, opened in 1984. As a result, there are now two substantial shopping centers in the downtown area: Mitchell Shopping Center on Center Street and Vineyard Plaza on Vine Street. These retail centers are exerting considerable pressure on neighborhood-serving businesses in the Plaza area, and therefore constitute major factors influencing the urban form of the entire downtown area.

FINDINGS

- A number of significant topographic and geographic features define and visually differentiate Healdsburg from the surrounding natural and agricultural landscapes. These include Fitch Mountain, the Russian River, Highway 101 and the hills and ridgelines along the northeastern edge of the Urban Service Area. Also contributing to the scenic quality of Healdsburg are numerous heritage oaks, the oak savannah vegetation and chaparral vegetation on the ridgelines to the north and east, the distant wooded hills to the west and the Foss Creek riparian corridor.
- A number of man-made scenic resources are important elements in defining Healdsburg's scenic quality. These include the vineyards and orchards that border the city, the large number of historic buildings, the city's parks, the Plaza, the rich complement of street trees, and the many specimen trees, shrubs, and lawns in the residential neighborhoods.
- Within and outside the Urban Service Area there are a number of scenic road segments that should be protected and enhanced. These include Highway 101, Healdsburg Avenue north of Chiquita Road, Healdsburg Avenue south of Memorial Bridge, Fitch Mountain Road, Bailhache Avenue, Dry Creek Road, Westside Road, and West Dry Creek Road.
- There are a number of visual liabilities within the Urban Service Area. Most of Healdsburg Avenue and the commercial downtown area is dominated by automobiles and trucks and highly visible parking lots. There is also a substantial adverse scenic/visual impact resulting from the strip development and mixed use area along substantial portions of Healdsburg Avenue, and the intensive industrial development at the far northern and southern edges of the city. Visually insensitive commercial development in the downtown area is also an adverse factor influencing scenic resources.
- The City and the Redevelopment Agency have undertaken significant efforts in recent years to upgrade the visual quality of the downtown area. The vacant block on the west side of the Plaza, which for several years has constituted a major visual liability, is being developed with a hotel and complex of shops in conjunction with a major upgrading of Foss Creek. In addition, a building facade program has provided grant monies for local businesses for upgrading building facades in commercial zones, particularly around the Plaza.

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APPENDIX A

HEALDSBURG GENERAL PLAN REVISION ISSUES SUMMARY

This report summarizes the results of an intensive three-pronged effort to identify community concerns about growth and development in the City of Healdsburg as the basis, in part, for data collection and policy development in connection with the revision of the Healdsburg General Plan.

During a three day period between February 11-13, the Consultant Team, headed by Mintier Harnish and Associates, conducted a series of informal interviews with City officials that included separate interviews with four of the five City Council members and all five Planning Commissioners and group interviews with the Design Review Commission, the Parks and Recreation Commission, and the Traffic Safety Commission. Several major property owners were also interviewed but their comments tended to be specific in nature and are not included in this summary.

In conjunction with their visit to Healdsburg, the Consultants also conducted a townhall meeting Tuesday evening, February 12, in the Community Center. The meeting was attended by approximately 80 residents of the Healdsburg area.

In addition to the interviews and townhall meeting, the City solicited comments from residents on their concerns by distributing a Community Response Form. This form was published in the Healdsburg Tribune on January 30 and February 6, mailed to key community groups, made available at City offices and other locations around town and distributed at the townhall meeting. By March 8, 1985, the City received 121 completed forms.

All three efforts generally sought residents' responses to three questions: 1) what are the positive qualities or assets of Healdsburg; 2) what are the problems with Healdsburg; and 3) what issues should be addressed in the revised General Plan. There was obvious overlap in responses to the questions.

This report summarizes responses to these three general questions from the interviews, the townhall meeting and the Community Response Forms. This summary does not purport to be a scientific opinion survey, such a survey not being necessary for the purposes of general issue identification. Rather, it records the Consultants' impressions of residents' perceptions of and concerns about Healdsburg. No attempt has been made in this summary to edit out contradictory comments or comments critical of City officials or to make the comments fit preconceived notions about the problems and opportunities facing Healdsburg.

Positive Qualities and Assets

The Community Response Form asked residents to list the three most important assets or qualities of Healdsburg which should be preserved. The same question was asked during the individual interview and at the townhall meeting. Two qualities stand out as the most important to Healdsburg residents: the small town atmosphere and the natural environment.

Small Town Atmosphere

Most Healdsburg residents clearly like living in a small town. They like the town's village-like qualities, both physical and social. In terms of physical qualities, many residents mentioned the town's compactness and separate physical identity. Some mentioned the ease of walking to school and downtown. Others appreciate Healdsburg because it is quiet and uncrowded.

Equally important to Healdsburg residents are the social and cultural qualities that are often associated with small town living, such as feelings of belonging, personal service from local business people, sense of one's ability to make a difference, sense of personal safety, and community concern and involvement. These are some of the reasons that many feel Healdsburg is a good place to raise a family.

Natural Environment

The other asset most frequently mentioned is the area's physical qualities such as natural beauty and open space. Three types of physical features were most often mentioned: the Russian River, Fitch Mountain and other hills and ridges, and agricultural lands. In this category residents also mentioned trees, water quality, and diverse wildlife. The natural environment and agriculture, residents said, give Healdsburg a rural atmosphere and provide a contrast to the compact town.

Three other qualities were mentioned frequently but less often than the first two: the Plaza, historic homes, and Healdsburg's location.

The Plaza

For most Healdsburg residents the Plaza is the town's single most distinctive man-made feature: it is the town's hub, heart and focus. The community's sentimental attachment to the Plaza is striking. Understandably, then, residents are greatly concerned about its future.

Old and Historic Buildings

The other feature of Healdsburg's man-made environment most often mentioned is the town's impressive stock of old and historic homes and architecturally significant commercial buildings.

Location

Several residents described Healdsburg's location as ideal. While maintaining its small town qualities, Healdsburg is close to Santa Rosa and an easy drive to Bay Area cities, the coast and recreation areas to the north.

Other Qualities and Assets

Other qualities and assets mentioned at least one time by residents include the following:

- o Cultural diversity
- o Mixture of age groups
- o Unique neighborhoods
- o Nearly perfect weather and good air quality
- o Lack of political polarization
- o Water related recreation opportunities (e.g., Russian River, Warm Springs Dam)
- o City parks, recreation programs, swimming pool and golf course
- o Wine industry
- o The City's self-sufficiency in terms of public utilities (e.g., water, sewer, electricity)
- o Small businesses and the tenacity of small business owners
- o Community facilities (e.g., schools, airport, Villa Chanticleer)
- o Reasonable growth rate
- o Civic events
- o Railroad
- o Tourism potential
- o Community potential

Problems

The Community Response Form asked residents to list the major growth problems facing the City of Healdsburg. Similarly, those attending the townhall meeting and those individuals interviewed were asked to identify major problems in Healdsburg. The problems most often mentioned included circulation and traffic, residential development, commercial and industrial development and growth.

Circulation and Traffic

Topping the list of complaints about Healdsburg were problems concerning circulation and traffic. There is a general perception that there is too much traffic congestion in town. While Healdsburg may not be congested by large city standards, these traffic-related complaints must be viewed in the context of residents' general view of Healdsburg as a small town.

Three types of circulation problems seem particularly troublesome. First is the lack of north-south alternatives to Healdsburg Avenue. The second is the level of traffic on the typically narrow streets in older sections of town. The third is the inadequacy and poor arrangement of parking near the Plaza and along Healdsburg Avenue between Piper and Powell Streets. Residents mentioned several specific areas with problems of congestion and poor traffic flow including University Avenue, Powell Street, Healdsburg Avenue, Matheson, the Vine Street-Healdsburg Avenue intersection, and Fitch Mountain Road.

Other traffic-related concerns included poor integration of streets in the north area with the older street system, the need for the eastern extension of Tucker Street (others opposed this extension), lack of aggressive enforcement of traffic laws, and gravel truck traffic.

Residential Development

The second major group of problems identified concerns residential development. Many Healdsburg residents share the perception that residential areas are becoming too dense. Some of this concern focuses on the overall density of new development projects, in part fostered by state laws requiring density bonuses for projects that incorporate low and moderate income housing. Another part of the concern focuses on the impact of multi-family infill development and secondary residential units (i.e., granny units) on older neighborhoods. People are concerned not only about the city-wide residential density but also about compatibility of new high density development with existing neighborhood character.

Other specific housing concerns include the lack of affordable housing for young families and seniors, the lack of "upper-end" housing, lack of mobilehome park spaces, the lack of adequate farmworker housing, poorly designed and constructed housing (several people cited Fitch Mountain Villas specifically), and poor housing maintenance in some neighborhoods.

Commercial and Industrial Development

The third major group of problems identified concerns the location and quality of commercial and industrial development. The most frequently voiced complaint in this category concerns mixed strip development along Healdsburg Avenue. Several people called it a "hodge-podge" of stores, offices and industrial development. Related to this concern, some residents feel commercial development along the upper end of Healdsburg Avenue is weakening the downtown area. Indeed, much concern focused on the downtown area, particularly high vacancy rates, the vacant land on the west side of the Plaza and the use of groundfloor space in buildings for offices.

Several residents were outspoken in their criticism of the new Vineyard Plaza shopping center, particularly concerning its design and impact on existing businesses. One person expressed concern about the incompatibility of the new shopping center and the adjacent industrial development. Several people voiced concerns about use of metal buildings in lieu of conventional construction in several areas of Healdsburg. Others cited the Dry Creek Inn and the 7-11 store on Healdsburg Avenue as newly constructed buildings not in keeping with Healdsburg's character.

Growth

The fourth major category of problems identified concerns the pace and quality of development in Healdsburg. Many residents are concerned about the impact of urban growth on agricultural lands, hillsides, wildlife, and air and water quality.

Some residents said that Healdsburg simply has too many people, that growth is occurring too rapidly and that growth is changing the character of Healdsburg for the worse.

Several long-time residents expressed resentment toward newcomers. Others feel that too many growth decisions are motivated by the financial interests of developers (particularly out-of-town developers) and realtors.

Miscellaneous Problems

Outside these broad categories of concerns, residents mentioned a host of other problems with Healdsburg, including:

- o Unattractive entrances to the town
- o Shortage of local jobs
- o Lack of an overall plan or theme for development
- o Provencial attitudes
- o Community apathy
- o Confusing "Healdsburg" signs along Highway 101
- o Lack of local recreational and entertainment opportunities for residents of all ages (i.e., children, teenagers, adults, and senior citizens)
- o Overcrowded schools
- o Concern for maintaining adequate police and other City services
- o Lack of an arts program and cultural center
- o Trash in streets, parks and Foss Creek
- o Lack of public restrooms.

City Government

Of a different nature were complaints residents expressed about the management of the City.~ These included:

- o Inability of the City to make decisions without outside help
- o City Hall ignoring the community's wishes
- o Excessive government regulation, in general
- o Poor planning and urban design decisions
- o Inadequate, unrealistic and inconsistent zoning
- o Pro-growth attitude at City Hall
- o City promotion of business growth
- o City involvement in real estate development, particularly in acquiring the hotel site on the Plaza
- o Growth of the City bureaucracy in general.

Planning Procedures

In the interviews, City Council members, Planning Commissioners and other City commission members were asked what planning and procedural issues of a day-to-day nature they found troublesome. The list of these problems was long:

- o Overly general and hard to interpret General Plan land use map
- o Inconsistencies between the general plan and zoning
- o The DRD (Downtown Residential District) zoning
- o Lack of clear development standards
- o Absence of guidelines for judging creative projects
- o Lack of clear design review standards
- o Too little involvement of the Planning Commission and the Design Review Commission in major redevelopment decisions
- o Confusion over the respective roles of the Planning Commission and Design Review Commission
- o Differences of opinions between the City Council and Planning Commission

- o Lack of staff support for the design review process
- o Inadequate subdivision standards and procedures
- o Poor housing affordability guidelines, especially for maintaining affordability.

Issues that Should be Addressed in the New General Plan

Responses to the questions about Healdsburg's assets and problems clearly identify major issues to be addressed in the General Plan revision. This section summarizes other issues identified in the interviews, at the townhall meeting or in the Community Response Forms that do not fit easily into either of the two preceding categories or are of a very specific nature.

General Issues

- o Lack of clear direction to guide future growth
- o Growth and expansion at the north end of town
- o Agricultural lands preservation west of Highway 101
- o Community involvement in decision-making about the future of Healdsburg
- o Suburbanization of Healdsburg
- o Urban sprawl
- o Industrial pollution
- o Amount and type of commercial development along Healdsburg Avenue
- o Appropriateness of land use in the incorporated peninsula area
- o Financing public improvements and services
- o Maintaining the level of police and fire services
- o Competition with Windsor
- o Impact of possible street widenings on older neighborhoods
- o Role of wine related tourism and Lake Sonoma tourism in Healdsburg's development
- o Role of Lake Sonoma related tourism in Healdsburg development
- o Appropriate route for the Vine Street extension
- o City's role in downtown development and private enterprise
- o Recreation and entertainment opportunities
- o Utilization of Villa Chanticleer
- o Need for additional recreational facilities (e.g., soccer fields, large, family oriented park)
- o Role of the minority community in Healdsburg
- o Jobs-housing balance
- o Impact of expanding employment in Santa Rosa
- o Impact of economic decline in the wine industry
- o Circulation and traffic safety.

Specific Recommendations

- o Promote wine industry related tourism
- o Ensure that tourism is integrated with day-to-day living (i.e., "don't turn Healdsburg into Carmel")
- o Avoid dependence on wine industry related tourism
- o Promote light industrial and retail uses
- o Confine services for Lake Sonoma related traffic to the north end of town (i.e., Dry Creek Road)

- o Develop a City informational and directional sign program
- o Concentrate development along Healdsburg Avenue in clusters and limit office uses
- o Capitalize on Healdsburg's historic features
- o Underground utilities
- o Protect Foss Creek tributaries
- o Clean up Foss Creek
- o Revegetate creeks
- o Get rid of Basalt
- o Connect Tucker Street to new development to the east
- o Do not connect Tucker Street to new development to the east
- o Provide for clustering and mixture of housing types in northern growth area
- o Promote a better range of shopping opportunities
- o Promote the development of more "good quality" restaurants
- o Stop any further fast food restaurant development in Healdsburg
- o Direct Lake Sonoma tourist traffic to Geyserville exit
- o Provide for a new movie theater
- o Provide for a good bookstore
- o Promote tree preservation
- o Provide support for fine arts and the humanities
- o Develop a strong open space preservation program
- o Eliminate inconsistencies among City plans and regulations affecting growth and development
- o Focus commercial development on downtown
- o Clean up the old Safeway parking lot
- o Return the town to the way it used to be
- o Complete the Plaza revitalization program
- o Start over on the Plaza hotel project
- o Get rid of the Vineyard Plaza Shopping Center
- o Make Healdsburg Avenue and Center Streets one way
- o Provide for more teen recreation opportunities
- o Provide for more senior citizen recreation opportunities (e.g., dancing)
- o Build more low/moderate income housing
- o Build more "upper-end" housing
- o Provide better northern traffic access to the Healdsburg High School
- o Increase public access to the Russian River
- o Turn Fitch Mountain into a park
- o Provide housing and a center for farmworkers
- o Do more to integrate the Hispanic community with the rest of the community
- o Avoid high density housing
- o Reduce the illegal immigrant population
- o Require more landscaping in new developments
- o Lakescape Highway 101 off-on ramps at Mill Street and Dry Creek Road
- o Develop an enforceable sign program
- o Get rid of billboards
- o Beautify Healdsburg with trees and flowers
- o Develop City theme (e.g., "City of Flowers and Wine")
- o Clean up junk yards and other nuisances
- o Protect the integrity of existing neighborhoods
- o Limit Healdsburg growth to the present sphere of influence
- o Limit the use of groundfloor spaces in buildings on the Plaza to retail business

- o Provide for a mobilehome park in the northern expansion area
- o Review commercial uses presently allowed in commercial zones
- o Develop bike lanes
- o Eliminate flouride from City drinking water
- o Establish a "Good of the City" tax
- o Eliminate the use of portable classrooms at city schools
- o Stop hiring outsiders at City Hall
- o Stop spending money on consultant studies.

List of Those Interviewed

City Council Members

Robert Rose, Mayor
Ben Collins
Pete Foppiano
Bill Proctor

Planning Commissioners

Carla Howell, Chairman
Richard Iverson
Phil Rice
Frank Zak
Eric Ziedrich

Parks and Recreation Commissioners

Richard Bugarshe, Chairman
Sherry Gehrman
Nina Seldner
Bill Trowbridge
Dayle Puckett, Recreation Director

Design Review Commissioners

Orin Bain, Chairman
Lenny Siegel
Jerry Eddinger
Gene Silva
Marla Young

Traffic Safety Commission

Dean Dunscliff, Chairman
Candace Green
Al Ghiglieri

Joe Palla, Police chief
Jim Churchill, Public Works Department

Individuals

Jim Brush
Zelma Patchford
Frank Canaro and Jim Mazzoni

COMMUNITY RESPONSE FORMS

TABULATION*
MARCH 1985

121 forms were received from community members and their responses can be summarized as follows:

	ASSET	LIABILITY
Small town atmosphere	76	1 (attitude)
Natural environment	67	
Traffic	1	43
Historical buildings	41	
Rapid Growth	3	46
Lack of proper planning and design controls		45
Downtown vacancies		37
Agriculture	24	
Lack of cultural facilities (teens, seniors, movies, restaurants, bars)		21
Tourism	14	14
Location	4	
School overcrowding		6

As an interesting note, five people commented that the City should not be involved in real estate development, i.e., the west side of the Plaza and the shopping center. Seven people opined that the City should forget the hotel project while four people commented in favor of it.

* Tabulation prepared by the City of Healdsburg Planning Staff.

**CITY OF HEALDSBURG
GENERAL PLAN REVISION**

Dear Resident:

The City of Healdsburg has begun a year-long process of revising its General Plan. We are anxious to hear your opinions about the future growth and development of the City of Healdsburg. This response form is one means for you to register your opinions. We invite you to fill this form out and send it back to us as soon as possible. We also encourage you to attend the townhall meetings and public hearings that will be held throughout the year. Look for announcements of those meetings and hearings at City Hall, and in newspapers and local organization newsletters. Thank you in advance for your interest and time.

BOB ROSE, MAYOR

COMMUNITY RESPONSE FORM

A. What, in your opinion, are the three major growth problems facing the City of Healdsburg?

1. _____
2. _____
3. _____

B. What are the three most important assets or qualities of the City of Healdsburg which should be preserved?

1. _____
2. _____
3. _____

C. If you could change one thing about Healdsburg, what would it be?

D. How long has your family lived in the Healdsburg area? _____

E. How long have you lived in the Healdsburg area? _____

F. Do you live within the City limits of Healdsburg? _____

G. Any other comments? _____

Please return this survey to:
(or drop it off at City Hall)

General Plan
City of Healdsburg
P.O. Box 578
Healdsburg, CA 95448

For further information regarding the General Plan project, contact:

Verna Cox, City Planner
(707) 433-8801
(or at the above address)

Thank you.

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